CANADA AND INTERNATIONAL MINERAL MARKETS: DEPENDENCE, INSTABILITY, AND FOREIGN POLICY

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Foreword

International mineral markets are notoriously unstable with respect to both prices and annual consumption. For mineral exporting nations such as Canada, market instability creates difficult problems for mineral producers and for governments. Domestically, the issue finds its way into mineral and regional development policy debates. In the international setting, the issue is addressed through a number of vehicles, one of the most important of which is international commodity arrangements.

In this study, Michael Webb, with assistance from Mark Zacher, explores attempts by Canadian policy makers to manage diverse Canadian interests with respect to several international commodity arrangements. More specifically, the authors analyze Canadian participation in schemes to stabilize markets for copper, iron ore, lead, nickel, potash, tungsten, uranium, zinc and tin.

The findings should be of interest of all students of Canadian mineral policy and of international mineral marketing systems. In conclusion, the authors suggest that Canadian policy makers have been relatively successful at managing the trade-off between domestic and international interests. More specifically, they found that, although Canadian policies are generally made on a case-by-case basis, certain interesting patterns clearly emerge.

The Centre for Resource Studies presents the results of scholarly research in non-specialist terms, and in a form readily accessible to policy makers and other interested groups. We are pleased to offer this study, in the hopes that it will provide useful insights drawn from past experience that can be applied in the process of developing effective mineral policies for Canada in the future.

Views expressed are those of the authors, and do not necessarily represent the views of the Centre for Resource Studies or its sponsors.

David L. Anderson
Executive Director
Centre for Resource Studies

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Summary

This study describes Canadian policy towards intergovernmental cooperation to reduce instability in international mineral markets, and explains how economic and political considerations have interacted to shape Canadian policy. The study looks in detail at Canadian policy regarding eight minerals exported by Canada - copper, iron ore, lead, nickel, potash, tungsten, uranium, and zinc - and one mineral - tin - which Canada has traditionally imported. Instability in foreign markets imposes severe burdens of adjustment on mining companies, mine workers, and mining communities in Canada, since foreign demand accounts for the bulk of Canadian production of these minerals.

The problems caused by dependence on unstable international markets have frequently stimulated interest in Canada in international consultative mechanisms and, occasionally, in more formal arrangements to stabilize international markets. Other mineral producing countries, particularly in the Third World, have called for the creation of cartels and formal international commodity agreements to stabilize and support international markets for some of these minerals.

Canadian policy towards international efforts to stabilize mineral markets has typically been made on a case-by-case basis to reflect mineral-specific and time-specific Canadian interests. Nevertheless, certain patterns in policy can be identified. First, Canada has generally preferred unregulated to regulated international mineral markets. Canada has been especially opposed to Third World-initiated efforts to create cartels or international commodity agreements which could discriminate against Canadian exporters. Canada did play a leading role in an international cartel for uranium in the early 1970s, but this exception is explained by the severe threat facing the industry at the time and by unique political and economic characteristics of the international uranium industry. Second, and in contrast, Canada has consistently supported developing countries' efforts to regulate international markets for tin and for agricultural commodities which Canada imports from the Third World. Third, Canada has strongly supported the establishment of international producer-consumer study groups for minerals exported by Canada. Study groups are seen to help stabilize international markets by improving market transparency and by providing fora for consultations which may facilitate better decision-making by individual firms and encourage individual producers to exercise greater self-restraint in marketing.

Fourth, Canada has accepted tacit efforts by firms in oligopolistic international mineral industries to manage markets by means of producer price systems based on price leadership and by avoiding unrestrained competition for markets.

The primary determinants of Canadian policy towards cooperative intergovernmental efforts to stabilize international mineral markets are the interests of Canadian producing firms. Ottawa's position in international discussions is shaped in close consultation with the concerned Canadian industry, and industry views carry great weight in Canadian policy-making. The strong competitive position of many Canadian mineral producers, the existence of tacit oligopolistic mechanisms of market management in important foreign markets, and the traditional opposition of the mining industry to government regulation have all contributed to Canada's opposition to schemes for formal market regulation. Groups in Canada that might benefit from mineral market stabilization (e.g., mine workers and mining communities) have not pressed the government to pursue formal regulation. The safety net of social welfare policies and direct employment subsidies provided by Ottawa and by provincial governments has shielded these groups from the full impact of international mineral market instability.

Narrow sectoral economic interests in proposed arrangements are occasionally modified by two broader Canadian foreign policy concerns. First, Canada's most important external relations are with the advanced industrialized countries that are Canada's allies in NATO and partners in the OECD. The need to avoid alienating these countries has contributed to Canada's reluctance to participate in formal regulatory schemes for minerals that it exports to other industrialized countries. Second, Canada has traditionally sought to maintain close relations with developing countries, and this has made Canada willing to join international regulatory schemes for tin and for agricultural commodities imported from developing countries. Canada also moderated its rhetoric in United Nations discussions of commodity agreements for minerals that Canada exports in order to avoid alienating developing countries, but made no concessions that could have imposed significant costs on Canadian producers.

We conclude that Canada can do little to directly stabilize international mineral markets. Study groups hold the best hope of bringing some stability to markets, but Canada has had little success in persuading other countries to apply the International Lead and Zinc Study Group model to other minerals. The largest developed mineral importing countries are generally reluctant to support international stabilization efforts (even in the form of non-interventionist study groups), while certain developing exporting countries demand nothing less than formal regulation that could prove enormously costly to Canada. The need for appropriate internal policies, both to help the Canadian industry remain competitive and to ease the domestic burden of adjustment to unstable international markets, is therefore very great.

Résumé

Cette étude décrit la politique canadienne de coopération intergouvernementale visant à réduire l'instabilité des marchés internationaux des minéraux, et elle explique également comment l'interaction de considérations à la fois économiques et politiques a contribué à la formation de cette politique. Cette étude examine en détail la politique canadienne concernant huit minéraux exportés par le Canada - le cuivre, le minerai de fer, le plomb, le nickel, la potasse, le tungstène, l'uranium et le zinc - et un minéral - l'étain - que le Canada a traditionnellement importé. L'instabilité des marchés internationaux impose de lourdes tâches d'adjustement sur les compagnies minières, leurs ouvriers et les communautés concernées au Canada, étant donné que la demande étrangère absorbe la plus grande partie de la production canadienne de ces minéraux.

Les problèmes causés par l'instabilité de marchés internationaux dont le Canada dépend, ont souvent provoqué de l'intérêt pour des mécanismes consultatifs internationaux et, occasionellement, pour des arrangements plus formels dans le but de stabiliser les marchés internationaux. D'autres pays producteurs de minéraux, particulièrement au Tiers Monde, ont demandé la création de cartels et d'accords internationaux formels sur les produits de base, dans le but de stabiliser et de soutenir les marchés internationaux de quelques-uns de ces minéraux.

La politique canadienne concernant ces efforts internationaux de stabilisation des marchés des minéraux a été habituellement élaborée cas par cas, reflétant ainsi les intérêts particuliers du Canada à chaque époque et pour chaque minéral. On peut néanmoins identifier quelques tendances dans cette politique. Premièrement, le Canada a, en général, préféré que les marchés internationaux des minéraux restent libres plutôt que réglementés. Le Canada s'est spécialement opposé aux efforts venant du Tiers Monde et visant à créer des cartels ou des accords internationaux sur les produits de base qui auraient pu défavoriser les exportateurs canadiens. Il est certain que le Canada a joué un rôle de premier plan dans le cartel international de l'uranium au début des années 70, mais cette exception s'explique par la grave menace à laquelle devait faire face cette industrie à cette époque, et par les caractéristiques politiques et économiques uniques de l'industrie internationale de l'uranium. Deuxièmement, par contre, le Canada a

soutenu sans relâche les efforts des pays en voie de développement pour réglementer les marchés internationaux de l'etain et des produits agricoles de base que le Canada importe du Tiers Monde. Troisièmement, le Canada a soutenu avec force la formation de groupes internationaux d'etude entre producteurs et consommateurs pour les minéraux exportés par le Canada. Ces groups d'études sont considérés comme une aide à la stabilisation des marchés internationaux, car ils améliorent la transparence du marché, et ils fournissent des forum de consultation qui peuvent faciliter de meilleures prises de décision pour chaque entreprise et encourager chaque producteur à exercer plus de retenue dans ses efforts de commercialisation. Quatrièmement, vis-à-vis des industries internationales des minéraux en situation d'oligopole. Le Canada a accepté les efforts tacites des compagnies qui ont cherché à gérer les marchés via un système de prix établit par les producteurs et basé sur la firme dirigeante, au lieu d'une competition libre sur les marchés.

L'intérèt des firmes productrices canadiennes est le principal détérminant de la politique canadienne envers les efforts intergouvernementaux de stabilisation des marchés internationaux des minéraux. La position d'Ottawa dans les discussions internationales est formulée en consultation étroite avec l'industrie canadienne concernée, et les opinions de l'industrie ont une grande importance dans l'élaboration de la politique canadienne. La position fortement compétitive de beaucoup de producteurs de minéraux canadiens, l'existence de positions tacites d'oligopole pour la manipulation d'importants marchés étrangers, ainsi que la traditionnelle opposition de l'industrie minière aux réglementations gouvernementales, ont toutes contribué à l'opposition canadienne aux projets de réglementation formelle du marché. Les groupes qui, au Canada, pourraient bénéficier de la stabilisation des marchés des minéraux (par exemple les mineurs et les communautés minières) n'ont pas exercé de pressions sur le gouvernement pour que celui-ci promeuve une réglementation formelle. Le filet de protection des politiques de bien-être social et de subventions directe à l'emploi, fourni par Ottawa et par les gouvernements provinciaux, a protégé ces groupes du plein impact de l'instabilité des marchés internationaux des minéraux.

Dans les arrangements proposés, les intérêts économiques de certains secteurs sont parfois relégués au second plan par deux plus amples préoccupations de la politique étrangère canadienne. Premièrement, les relations internationales les plus importantes pour le Canada se font avec les pays industrialisés avancés qui sont ses alliés au sein de l'OTAN et ses partenaires dans l'OCDE. C'est pour éviter de s'aliéner ces pays que le Canada s'est montré réticent à contribuer à des projets de réglementation formels pour les minéraux exportés aux autres pays industrialisés. Deuxièmement, le Canada a traditionnellement cherché à maintenir des relations étroites avec les pays en voie de développement, et ceci l'a rendu prêt à se joindre aux projets internationaux de réglementation de l'étain et des produits agricoles de base importés des pays en voie de développement. De même, pour éviter de s'aliéner les pays en voie de développement, le Canada a aussi modéré son discours aux Nations Unies durant les discussions des accords sur les produits minéraux de base exportés par le Canada, mais il n'a fait aucune concession qui ait pu imposer des coûts importants aux producteurs canadiens.

Nous concluons que le Canada ne peut faire que peu de choses pour stabiliser directement les marchés internationaux des minéraux. Ce sont sur les groupes d'études que sont fondés les plus grands espoirs de stabilité pour ces marchés, mais le Canada a eu peu de succès dans ses efforts pour persuader d'autres pays d'appliquer le modèle du Groupe International d'Etude du Plomb et du Zinc à d'autres minerais. Les pays importateurs de minéraux les plus développés sont généralement réticents à soutenir des efforts internationaux de stabilisation (même sous la forme de groupes d'études noninterventionistes), alors que certains pays exportateurs en voie de développement n'exigent rien de moins qu'une réglementation formelle qui pourrait s'avérer énormément coûteuse pour le Canada. Il y a donc là un très grand besoin de politiques internes appropriées, à la fois pour aider l'industrie canadienne à rester compétitive, et pour alléger le fardeau domestique d'ajustement à l'instabilité des marchés internationaux.

1. INTRODUCTION

Mineral industries play an important role in Canada's export trade and in the Canadian economy as a whole. Exports provide approximately 80 percent of the total demand for Canadian minerals,[1] making Canadian mining companies, mine workers, and mining communities highly dependent upon international market conditions. The implications of this dependence extend beyond the mining industry to the entire national economy. In 1983, a poor year for the industry, mineral mining and manufacturing (excluding coal, natural gas, and petroleum) accounted for 3.3 percent of Canada's gross national product. The mineral industry makes an especially valuable contribution to Canada's international trade. In 1984, crude and fabricated mineral products (excluding coal, natural gas, and petroleum) accounted for 18.1 percent of the total value of Canadian exports. Canada has traditionally run a large surplus in its mineral trade account, and this has helped to offset chronic deficits in other balance of payments accounts. For example, in 1984 exports of crude and fabricated mineral products (excluding coal, natural gas, and petroleum) were valued at $16.3 billion, compared to imports in the same categories of $8.3 billion and total imports in all categories of $73.1 billion.[2] The Canadian mineral industry is so large that if a number of international mineral markets are similarly affected by common trends (as has happened in the 1980s), the impact will extend beyond specific sectors and regions and be felt in the Canadian economy as a whole.

Canadian federal and provincial governments have traditionally viewed the nation's mineral resources as a basis upon which to build a more diversified and industrialized economy. The primary thrust of Canadian mineral policy has been to increase the upgrading of minerals prior to export by encouraging increased mineral processing and mineral-based manufacturing in Canada. The central focus of the federal government's international initiatives in the area of mineral marketing has therefore been to persuade mineral importing countries to reduce the escalating tariffs and non-tariff barriers which inhibit the export of Canadian minerals in more highly processed forms. However, mineral processing industries in most industrialized countries have insisted on protection, and Ottawa has had limited success in its efforts to persuade foreign governments to eliminate these barriers. A high proportion of Canadian mineral production is still exported in crude forms. According to a statement in 1974 by federal and provincial ministers responsible for mining, "in cases where increased mineral processing and mineral-based manufacturing are not feasible, desirable or economic, mineral policy should then seek assurance that Canadians are obtaining the best return from mineral exports".[3]

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[1] Department of Energy, Mines and Resources, *Mineral Policy: A Discussion Paper*, (Ottawa: December 1981), p. 12.

[2] Figures calculated from *Canadian Minerals Yearbook 1985*, pp. 69.5, 69.15, 69.21.

Achievement of the objective of maximum returns from mineral exports requires measures to deal with the traditional instability of international mineral markets. Much of this instability can be traced to international business cycle fluctuations. The impact of business cycle fluctuations on mineral markets is amplified by low price elasticities of supply and demand for minerals. Capital intensity and the need for debt financing of mineral production facilities, significant economies of scale in production, the existence of government-owned operations which are not constrained by the need to turn a profit, and government subsidies for private mining firms all contribute to low price elasticities of supply that make it difficult for many mineral industries to adjust supply to match fluctuating demand. Instability in particular mineral markets has also been exacerbated by idiosyncratic factors such as the timing of new discoveries, protectionism in major consuming countries, and political considerations that encourage consuming countries to favour specific sources of supply.

Canada and other mineral exporting states have pursued a variety of strategies to assist producers buffetted by international market fluctuations. Domestically, governments have implemented measures ranging from favourable tax treatment to direct subsidies to manipulation of unemployment insurance funds to assist producers suffering from international market instability. Internationally, the governments of exporting countries have sought to persuade importing countries to reduce trade barriers that protect import-competing producers and that impose the main burden of adjustment to international market fluctuations on export-dependent producers like Canada. Since the early 1980s, Canadian governments have sought to negotiate a trade access agreement with the United States which would (among other goals) shelter Canadian resource producers from contingency protection actions brought by high-cost American resource producers. As we shall see, protectionism in the United States (the largest market for Canadian minerals) has been one of the most destabilizing influences on Canadian mineral industries.

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[3] Canada, *Towards a Mineral Policy for Canada: Opportunities for Choice*, (Ottawa: Information Canada, 1974), p. 17.

A third approach to instability in international mineral markets has been to try to reduce instability directly through intergovernmental cooperation. Bringing stability to international markets would reduce the need for either domestic measures or trade access negotiations.

The primary objective of this study is to describe Canadian foreign policies for reducing instability in the markets for minerals that Canada exports and to explain how economic and political considerations have interacted to shape Canadian policy. This focus in not intended to denigrate either domestic measures or trade access negotiations as means for coping with unstable international markets; both are obviously of critical importance even though they are beyond the scope of this study. Eight minerals exported by Canada that have been the subject of international stabilization efforts are included in the study: copper, iron ore, lead, nickel, potash, tungsten, uranium, and zinc. The study focuses on Canadian policy since the 1950s, although reference will occasionally be made to earlier periods.

Canadian policy in this area can be explained in large part by reference to the economic interests of specific mineral sectors. These interests are shaped by the structures of individual mineral markets and by ever-changing conditions of supply, demand, and price. Spokesmen from mineral producing corporations advise Ottawa about the interests of their particular industries, but officials frequently come to their own conclusions about the problems and needs of specific sectors. In general, one would expect Canadian mineral producers and the Canadian government to prefer higher and more stable prices to lower and less stable prices. Differences between industry and government do arise over the best means for achieving stable, remunerative prices.

While sector-specific economic interests dominate Canadian policy towards international efforts to deal with mineral market instability, there are broader Canadian foreign policy interests that impinge upon policy regarding individual minerals. Canada is a member of the bloc of western industrialized nations, as evidenced by its participation in the Organization for Economic Cooperation and Development (OECD) and the Group of Seven economic summit meetings. Canada's partners in this bloc provide the main export markets for Canadian goods and services, including minerals. In 1984, the United States, the European Economic

Community (EEC), and Japan together accounted for 89.5 percent of Canadian exports of crude and fabricated mineral products. The Canadian government has been highly sensitive to the need to avoid actions that could be perceived by these countries as inimical to their interests. Ottawa has been especially sensitive to the reaction of the United States to Canadian mineral policy initiatives, since the U.S. provides by far the largest market for Canadian exports. It alone accounted for 73.9 percent of Canadian exports of crude and fabricated minerals in 1984.[4] Given the ever-present threat of protectionism and other forms of retaliation against Canadian policies that could put American producers or consumers at a disadvantage, Ottawa has generally deemed it unwise to embark on policies likely to be opposed by Washington.[5] The high degree of intracorporate integration of the Canadian and American economies has added to the opportunities for American producing and consuming interests to influence Canadian policy, as will become apparent in a number of the cases covered in this study.

Another group of countries with which Canada has cultivated close relations is the Third World. Canadian foreign policy makers have seen important opportunities for mutually beneficial economic exchanges with developing countries, and have seen in international development cooperation an opportunity to create for Canada a worthwhile and distinctive role in international politics. Canada also shares the long-term political-strategic interest that the advanced capitalist countries have in stability in the Third World. Canadian public opinion has consistently favoured Ottawa's support for international development cooperation.

Canada's desire to promote development in the Third World and to cultivate close political ties with developing countries has impinged upon Canadian policy towards instability in international mineral markets. Canada's most significant international development assistance efforts have taken the form of foreign aid transfers. However, most developing countries depend heavily upon exports of minerals and other primary commodities. For much of the period under study in this project, developing countries have made reform of international commodity markets one of their main demands in negotiations with the advanced industrialized countries in the United Nations and other fora. They have called for the creation of international commodity agreements (ICAs) to support and stabilize markets for a wide range of minerals and agricultural products exported and imported by Canada.

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[4] This and the preceding figure include coal, natural gas, and petroleum. *Canadian Minerals Yearbook 1985*, p. 69.23.

[5] Ottawa has implemented policies for petroleum and natural gas that generated strong American opposition, but these have subsequently been modified in response (at least in part) to U.S. pressure.

Canadian responses to Third World demands for commodity market regulation have reflected not only Canada's narrow economic interest in the measures being proposed, but also Canada's broader diplomatic interest in maintaining good relations with the developing countries. This is true for minerals such as copper and iron ore which are exported by both Canada and some developing countries, and for primary commodities that Canada imports from developing countries. Canada participated in an international commodity agreement for tin, a mineral that it imports from developing countries. Canada's policy towards the tin agreement provides an interesting illustration of how economic and diplomatic considerations interact in policy-making towards international mineral market stabilization. For this reason, and because the lessons learned from the experience of the tin agreement have influenced Canada's policy towards export minerals, tin is also included in this study even though Canada has traditionally been a net importer of the mineral.

It will be helpful to understanding what follows to present some background information at this point on two subjects which are relevant to most of the case studies. Negotiations regarding specific commodities have been influenced by broad principles enunciated in the United Nations and other multilateral fora, and developing countries have sought to modify these principles to support their demands for commodity market regulation. Third World pressures have affected Canadian policy in many of the cases discussed in this study, and it will therefore be useful to provide an overview of Third World initiatives for commodity market regulation. International efforts to stabilize commodity markets have involved the use of a variety of institutional mechanisms; a brief discussion of alternative mechanisms is necessary at this point to clarify what follows.

The Third World and Commodity Market Regulation: An Overview

Third World pressure for commodity market regulation has risen and fallen over the period of this study.[6] International commodity negotiations in the 1950s and 1960s were heavily conditioned by the principles enunciated in the 1947 Havana Charter for the abortive International Trade Organization (ITO). The ITO was to have been a parallel organization for trade to the International Monetary Fund in finance. The Charter for the ITO included a chapter on commodity agreements which mainly reflected the concerns of the industrialized countries. The United States, Britain, and other western countries foresaw the potential for interest in commodity market stabilization, but wanted to avoid the creation of cartels and other producer-only organizations such as had proliferated during the instability of the 1920s and 1930s. The Havana Charter therefore emphasized that only producer-consumer arrangements were acceptable, and that ICAs should be created only in cases of extreme market instability that was not likely to be corrected by the operation of market forces. Prices were to be fair to consumers and remunerative to producers; stabilization was to occur around market trends. The industrialized countries rejected attempts by certain Latin American countries to have the Charter support producer-only associations and to index commodity prices to the prices of manufactured goods. The Latin American countries wanted to use commodity agreements to in effect transfer greater resources to producing countries than would be transferred in the normal course of market operations, but the principle was rejected by the industrialized countries.

The United States failed to ratify the treaty creating the ITO, and the organization never came into being. However, in March 1947 the western industrialized nations had the Havana Charter commodity agreement principles approved by the Economic and Social Commission of the United Nations. This body created the Interim Coordinating Committee for International Commodity Agreements (ICCICA), which was to oversee the implementation of these principles in negotiations for specific commodities. During the 1950s, the industrialized nations sought to apply the Havana Charter provisions through this mechanism and in negotiations for ICAs for individual commodities such as tin, sugar, cocoa, and coffee.

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[6] For a detailed review of the post-1945 evolution of the international commodity trade regime (upon which the following is based), see Jock Finlayson and Mark Zacher, *Managing International Markets: Developing Countries and the Commodity Trade Regime*, (New York: Columbia University Press, 1988), chapter two.

Developing countries began to focus more and more of their international diplomatic efforts on commodity trade problems during the late 1950s and the 1960s. These included efforts to negotiate ICAs for specific commodities, as well as efforts to force the international community as a whole to address the broader issue of declining terms of trade for primary commodity producers. The objectives of the developing producing countries included price stabilization, but they were also interested in using ICAs to support higher price levels that would reverse declining terms of trade and transfer greater resources from developed to developing countries. The developing countries joined together in the "Group of 77" (G77) at the first United Nations Conference on Trade and Development (UNCTAD) in 1964 and made commodity trade reform one of their primary demands. However, the absence of effective coordination among the developing countries, combined with their lack of real bargaining power, prevented the international commodity trade issue from reaching the top of the international diplomatic agenda. Foreign aid and trade preferences for developing countries' exports of manufactured goods received much more attention during the 1960s. Therefore, while the G77 succeeded in getting the UNCTAD II Conference in 1968 and the UNCTAD III Conference in 1972 to reiterate support for commodity trade reform, most of the concrete action regarding primary commodities took place in commodity-specific negotiations that were only loosely connected to the broader UNCTAD discussions.

OPEC's success in raising the price of oil through concerted action in 1973-74 inspired developing countries that export other primary commodities to emulate the oil cartel. At the same time, the resource boom of 1972-74 and widespread fears of global resource shortages made it appear that the bargaining power of all resource producers had increased. Led by an activist UNCTAD Secretariat and a core group of militant developing countries, the G77 put together a package of demands for commodity market reform that was adopted as the Integrated Programme for Commodities (IPC) at the UNCTAD IV Conference in 1976. The IPC formed the centrepiece of the Third World's demands for a New International Economic Order (NIEO), a broad collection of proposed reforms in areas that included trade, aid, and finance that had been approved at the Seventh Special Session of the United Nations

General Assembly in September 1975. The IPC called for the creation of ICAs for ten "core" commodities exported by developing countries (cocoa, coffee, copper, cotton, hard fibres, jute, rubber, sugar, tea, and tin), other measures for eight additional commodities thought to be unsuited to regulation by means of ICAs with buffer stocks (bananas, bauxite, iron ore, manganese, meat, phosphates, tropical timber, and vegetable oils and oilseeds), and the creation of a Common Fund to finance buffer stocks and other measures called for in the IPC. These proposals dominated North-South negotiations in the mid-1970s, including those held under UNCTAD auspices and many held in other fora such as the *ad hoc* Conference on International Economic Cooperation that met in 1975-77.

Concerted Third World pressures for formal regulation of international commodity markets had dissipated by the early 1980s. Many developing countries had begun to lose interest in the IPC proposals by the late 1970s. Some were disappointed by the meagre results of the interminable IPC negotiations in the mid- to late-1970s; only one new ICA (for natural rubber) had been created. Other developing countries recognized that the measures proposed in the IPC would bring them few benefits and might even prove costly. The collapse of the International Tin Agreement in the mid-1980s further hastened the decline of Third World interest in ICAs. Another contributing factor was the replacement of the activist UNCTAD Secretariat leadership that had played a leading role in the creation of the IPC in the 1970s by new leaders that western countries have found to be less interested in market regulation (or, as Canadian officials put it, more pragmatic and realistic).[7] The ability of the Third World to present a united front on any issue was impeded by renewed divergences of interest among distinct groups of developing countries such as the newly industrializing countries, the poorest "Fourth World" countries, and the oil exporters. Finally, new issues (especially international debt) have arisen to take the place of commodity trade at the top of the North-South diplomatic agenda.

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[7] Interviews.

Alternative Mechanisms of Market Management

Many different institutional mechanisms have been used to bring stability and profitability to international primary commodity markets. All of these involve some departure from the norm of atomistic competition in free markets, although the degree of formal international collaboration varies from none to extensive. Three categories of mechanisms can be identified. First are those which do not involve formal regulation or government intervention in markets, and which serve to make markets less volatile rather than replacing market outcomes with administered outcomes. These include tacit mechanisms which provide stability in oligopolistic industries, and intergovernmental producer-consumer study groups. The second type of mechanism is formal producer-consumer intergovernmental regulatory agreements, usually known as international commodity agreements. The third category of mechanism is formal producer-only cartels. All three categories constitute *stabilization* mechanisms, but only formal ICAs and cartels constitute *regulatory* mechanisms. While these three categories of institutional mechanisms vary considerably on many important dimensions, they share the characteristic that they are intended (and sometimes serve) to bring stability to markets at price levels above those that would prevail in free markets characterized by unrestrained competition.

Tacit oligopolistic market management mechanisms[8] can evolve to bring stability to international commodity industries characterized by a small number of large producing firms seeking to maximize profits (rather than output or market shares), high barriers to entry, and standardized products. These characteristics are descriptive of many international mineral industries. Economies of scale, the capital intensity of mineral production, and the concentration of high-grade deposits in a small number of sites have all encouraged industrial concentration in this sector. Some international mineral markets have been affected by tacit oligopolistic market management which has stabilized prices at remunerative levels. Tacit oligopolistic cooperation can emerge when producers recognize that their fortunes are mutually interdependent - that is, that the best decisions of each depend upon the reactions of the others. If the number of firms is small enough, some may have limited price-making power, rather than being pure price takers as in the theoretical free market. Each recognizes that if it cuts prices in an attempt to expand market share, others will follow to defend their market shares and a new equilibrium will be reached at which market shares are largely unchanged but prices are lower. Thus, firms in an oligopolistic industry have a strong incentive to avoid price cutting if they have confidence that their competitors will also foreswear the tactic. Indeed, it would be unreasonable for profit-maximizing firms in such an industry to engage in unrestrained competition:

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[8] The term "management" is used to distinguish what can happen in oligopolistic international mineral industries from what happens either in freely competitive markets consisting of independent buyers and sellers all of whom are price takers, or in markets in which privately-owned firms compete with government-owned firms that seek to maximize output rather than profits. As the use of the adjective "tacit" implies (and as the following discussion explains), this kind of management does not involve formal agreements among firms or any sort of joint administration. The possibility of explicit covert oligopolistic collusion is remote, since such action would violate American and European anti-trust laws. Therefore, the possibility of explicit inter-firm collusion is not considered in this study.

> If they are at all perceptive, the managers of oligopolistic enterprises will recognize ... that profits will be higher when cooperative policies are pursued than when each firm looks only after its own narrow self-interest. As a consequence, we should expect oligopolistic industries to exhibit a tendency toward the maximization of collective profits.[9]

In theory, virtually any outcome (ranging from a purely competitive outcome to a monopolistic outcome) is possible, depending upon the assumptions individual firms make about each others' behavior.[10]

One specific mechanism of tacit oligopolistic market management is price leadership in the context of producer price systems. In this case, individual firms establish posted prices and closely follow each others' infrequently made changes in posted prices. This mechanism is quite common both because it is simple to implement and because it is generally acceptable under American and European anti-trust laws.[11] In this context, it is worth reiterating that no explicit or formal collusion is required to implement such a mechanism. While the outcome of price leadership depends upon the nature of the firm that takes the role of leader (whether it is the dominant firm or the lowest-cost firm, whether its leadership serves merely as a barometer of market trends or serves to maximize joint profits), "price leadership tends both to increase prices on the average and to reduce the magnitude of price fluctuations".[12] This has been the case in export markets of interest to Canadian mineral exporters.[13]

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[9] F.M. Scherer, *Industrial Market Structure and Economic Performance*, 2nd ed. (Boston: Houghton Mifflin Company, 1980), p. 168.

[10] Ibid., p. 151; Peter Asch, *Industrial Organization and Antitrust Policy*, rev. ed. (New York: John Wiley and Sons, 1983), pp. 69-70.

[11] Asch, *Industrial Organization and Antitrust Policy*, p. 66; Scherer, *Industrial Market Structure and Economic Performance*, pp. 176-77. One impediment

Price leadership is not necessary to implement tacit oligopolistic market management. Firms may simply avoid price competition (without recognizing a price leader) as a result of learning from past experience with rival firms. This kind of self-restraint has been called "informal and spontaneous collusion".[14]

Tacit oligopolistic market management is fragile. While it may serve to prevent prices from collapsing as fast during recession as they would in a purely competitive industry, unstable demand does put a severe strain on tacit cooperation.[15] During the 1970s and early 1980s, producer price systems based on price leadership came under severe strain in international mineral markets; some systems broke down, while others experienced substantial discounting from posted prices. Inadequate information, both on market conditions and on the behavior of other firms (e.g., whether they are secretly violating the tacit arrangement), can also prevent prices from being stabilized at remunerative levels. Large differences among firms in costs of production can also impede cooperation, since they give rise to differences regarding desirable price levels.[16] The existence of producers which seek to maximize output and market share rather than profits will undermine tacit cooperation because such producers have little incentive to avoid price competition in the search for new markets. This has been a particular problem in interna-

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to implementation may be inadequate information, which prevents firms from detecting each others' discounts from posted prices.

[12] Scherer, *Industrial Market Structure and Economic Performance*, p. 184; see also Asch, *Industrial Organization and Antitrust Policy*, pp. 66-69.

[13] Elizabeth Urquhart, *The Canadian Nonferrous Metals Industry: An Industrial Organization Study*, (Kingston, Ontario: Centre for Resource Studies, Queen's University, 1978), pp. 111-112, 122, 130, 132, 137.

[14] Asch, *Industrial Organization and Antitrust Policy*, pp. 69-70.

[15] Ibid., p. 70; Scherer, *Industrial Market Structure and Economic Performance*, pp. 209-211, 214.

[16] Scherer, *Industrial Market Structure and Economic Performance*, pp. 156-160, 222-225.

tional mineral industries in recent years due to the increase in the share of production accounted for by government-controlled producers which are less constrained than private firms by the need to turn a profit.

These fragilities in tacit oligopolistic market management indicate that this mechanism is highly dependent on market conditions that are beyond the control of producers. Tacit cooperation may enable producers to secure prices that are more stable and somewhat higher than they would otherwise be, but does not permit producers to ignore market conditions. Furthermore, tacit cooperation is unlikely to substantially alter the supply-demand balance as could, for example, an effective cartel. Thus, one important difference between tacit oligopolistic cooperation and other institutional mechanisms for stabilizing and supporting prices is that the former operates largely on the margins of the market; it does not replace the operation of market forces with centralized or coordinated administration. Nevertheless, tacit oligopolistic market management can help to stabilize markets at remunerative price levels. It may do so more successfully over the long run than formal market management because it does not introduce the kind of rigid market distortions that have been the downfall of many formal regulatory attempts.

Producer-consumer study groups are also intended to bring stability to international markets without the use of formal agreements or formal government intervention. The only formal study group currently in existence is the International Lead and Zinc Study Group (ILZSG); this organization has provided the model for study groups and international producer-consumer consultative fora that have been proposed for other minerals. Study groups perform two main functions; they improve the collection, analysis, and dissemination of statistical information about market trends, and they provide a forum for consultations among producing and consuming governments and firms. These consultations may occasionally lead to informal agreements (implemented independently by the participants) regarding production levels or prices, although the likelihood of such measures depends on the attitudes of participating governments. In the current international climate of distaste for government intervention in markets, the likelihood that informal agreements will be reached is low. Study groups can help to bring stability to international markets even in the absence of informal agreements; by improving information about market trends and sensitizing individual producers to the likely reactions of other market participants to their behavior, study groups can help producers to make better decisions and avoid over- or under-production. Study groups can also help to create conditions that facilitate the operation of tacit oligopolistic market management mechanisms, by improving information on market trends and on the actions of individual producers, and by promoting understanding of the mutual interdependence of producer fortunes.

A second category of institutional mechanism for bringing stability to international commodity markets is formal producer-consumer international commodity agreements.[17] In general, the government members of an ICA agree on a price range and try to maintain prices between the chosen floor and ceiling levels by intervening in markets. Intervention generally takes the form of explicit agreements on market shares and/or stockholding. Markets can be shared among producers by means of export and/or production controls. The agreement may incorporate provisions to encourage producers to expand output and exports when prices rise (thereby moderating market price increases), but export- or production-control based agreements are generally thought to be better able to defend floor than ceiling prices. Stockholding provisions can take the form of requirements for national stockholding, or of an international buffer stock financed by producers or producers and consumers. Agreements that use an international buffer stock are generally thought to interfere least with the normal operation of market forces, because they do not introduce distortions in the form of fixed market shares. They are also thought better able to defend ceiling prices than agreements that rely on export or production controls, because sales from the buffer stock (if the physical volume of the commodity held in the stock is large enough) can moderate upward movements in market prices.

Regardless of the specific mechanism chosen, ICAs can be used to stabilize prices around market trends, or to raise prices above market levels. The objective that is pursued depends upon the attitudes of the participating governments. Producing countries have frequently sought to use ICAs to support prices at above-market levels, but importing countries have agreed to do so only when they have had a political-strategic interest in transferring resources to the producing countries.

The third category of institutional mechanism for bringing stability to international markets is producer cartels. In a cartel, the participating firms or governments typically agree on a target price level (usually substantially higher than the market level) and on export or production controls to support that price. There have been many attempts to establish raw material cartels in the period since 1945. The best-known example is the Organization of Petroleum Exporting Countries (OPEC), which succeeded in supporting oil prices far above member states' costs of production for most of the period since 1973. Most other cartel attempts have failed dismally. The temptation for individual participants to defect from a cartel agreement is very powerful, because if only one producer cuts prices to increase its market share while the others uphold the price agreement, the defecting producer can reap larger sales at a price still supported by the restraint of the other producers. The temptation to defect can be especially powerful when costs of production diverge sharply among producers, since low-cost producers will be willing to sacrifice marginal price increases for larger market shares while high-cost producers will be much more willing to try to maintain higher prices at the expense of greater output.

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[17] See Finlayson and Zacher, *Managing International Markets: Developing Countries and the Commodity Trade Regime*, chapter one, for more details on ICAs and producer cartels as instruments of market regulation.

2. COPPER, IRON ORE, AND TUNGSTEN

Introduction

Copper, iron ore, and tungsten are all exported by Canada and by developing countries. In all three cases, Canada came under significant diplomatic pressure in the 1960s and 1970s to join in LDC-initiated schemes for international market regulation. Canada refused to participate in any of these schemes. International markets for all three minerals have been depressed for much of the current decade as a result of the 1981-82 recession and structural problems of oversupply and/or declining demand. There has been some interest, particularly in Canada, in producer-consumer study groups for these minerals as a means for improving market conditions and for defusing pressure in some producing countries for more drastic actions.

Copper is Canada's second most important non-fuel mineral export, with the value of crude and fabricated copper exports exceeded only by that of aluminum.[1] Canada is also one of the world's largest producers and exporters of copper, ranking since the 1970s as the third or fourth largest producer (after the United States, the Soviet Union, and, in recent years, Chile) and accounting for 8-11 percent of annual world copper production.[2] Since most Soviet and American copper production is consumed domestically, Canada's importance as an exporter exceeds its importance as a producer.

Most of the other important copper exporters are developing countries. The largest of these are Chile (20.8 percent of world exports in 1980-82), Zambia (11.9 percent), Zaire (7.0 percent), and Peru (6.3 percent).[3] These countries tend to be highly dependent upon copper for their export earnings; over the period 1980-82, copper accounted for 91.7 percent of Zambia's total export earnings, 45.5 percent of Chile's, 37.8 percent of Zaire's, and 16.5 percent of Peru's.[4] In contrast, exports of crude and fabricated copper products accounted for only 1.1 percent of

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[1] *Canadian Minerals Yearbook 1985*, p. 69.23.

[2] Energy, Mines and Resources Canada, *Canada's Nonferrous Metals Industry: Nickel and Copper. A Special Report*, (Ottawa: 1984), p. 45.

[3] World Bank, *Commodity Trade and Price Trends*, (1985 edition), table 8.

[4] World Bank, *Commodity Trade and Price Trends*, (1985 edition), table 9.

Canada's total exports in 1984.[5] The very high degree of dependence on copper exports, in conjunction with the traditional instability of most international copper markets, has stimulated ongoing interest among developing producing countries in international copper market regulation. The conflict between Canada and developing countries over international market regulation is therefore highlighted more clearly in the case of copper than in the case of any other commodity.

Canada is a major producer and exporter of iron ore, although the volume of production and exports has varied dramatically over the period under study. Exports account for approximately 80 percent of Canadian iron ore production.[6] Canada is also an importer and consumer of iron ore, as steel companies in Ontario import much of their iron ore supplies from affiliated producing facilities in the United States. Certain developing countries are also important exporters of iron ore, including Brazil, Liberia, and India. Most of these countries are less dependent on iron ore exports than the main copper producing developing countries are on copper exports. Nevertheless, iron ore negotiations have been affected by LDC pressure for market regulation.

Iron ore prices have been very stable in the short run, but prices in real terms have trended downward since the 1950s. This has happened despite continually increasing steel prices.[7] In recent years, the industry has been hit hard by structural changes in the steel industry. Canadian production has suffered from the decline of the U.S. steel industry, which traditionally accounted for most of Canada's iron ore output.

Tungsten is produced and traded in small quantities compared to the other minerals covered in this study, but is highly valued for its special properties. It is very hard and is therefore used extensively in alloys created to resist wear and abrasion.[8] Canada was a minor producer and exporter of tungsten during the 1960s and 1970s, and has recently become the leading non-communist world tungsten producer. The People's Republic of China (PRC) and the Soviet Union are the world's largest tungsten producers. For most of the period under study, Canada Tungsten, with a single mine in the North West Territories, was the sole Canadian producer. A second mine (Mount Pleasant Tungsten Mine in New Brunswick) reached full operation in 1984.[9] While Canada Tungsten does not publish sales figures, it is true that the value of tungsten production and exports in Canada does not approach that of minerals such as copper, nickel, iron ore, or zinc. Similarly, the number of people employed in tungsten production and export is quite small.

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[5] Calculated from *Canadian Minerals Yearbook 1985*, pp. 69.5, 69.23.

[6] Department of Energy, Mines and Resources, "The Canadian Iron Ore Industry: Current and Emerging Problems", Mineral Policy Sector Internal Report MRI 84/2 (Ottawa: 1984), p. 7.

[7] There was a brief interruption of the downward trend during the commodity price boom of the mid-1970s; World Bank, *Commodity Trade and Price Trends*, 1982/83 edition, pp. 123-4; Carmine Nappi, *Commodity Market Controls: A Historical Review*, (Lexington, Mass.: Lexington Books, 1979), p. 149.

[8] *Canadian Minerals Yearbook 1985*, p. 63.3.

Many developing countries produce and export tungsten. In addition to the PRC, the world's largest tungsten producer, Bolivia, South Korea, Brazil, Thailand, and Burma have sizable tungsten industries.[10] Some of these countries have consistently expressed an interest in international regulation of tungsten markets.

Most international trade in tungsten is conducted either within transnational corporations that both mine and consume tungsten, or by means of long-term contracts at producer prices. Estimates of prices prevailing in these transactions indicate that prices were generally rising (with considerable year-to-year variation) from the 1960s to around 1977, and have been falling since then. The market bottomed out in 1983 when demand and prices were so low that Canada Tungsten closed its mining operations for most of the year.[11]

Copper

1950s to Early 1970s

Copper prices on international markets outside North America were extremely unstable during the 1950s and 1960s. Prices in the market outside North America were largely determined by trading on the London Metal Exchange (LME) and tended to fluctuate widely and rapidly. Only a small percentage of the copper traded internationally was actually bought and sold in London (making the LME in some senses a residual market, and residual markets tend to be unstable), but the prices for virtually all of the copper traded outside North America were based closely on LME prices. Copper production in developing countries during this period was owned and controlled by transnational mining companies based in the United States, Britain, and other European countries. These companies made a number of informal, voluntary, yet cooperative, attempts to bring stability to the international market. They sought to establish a producer pricing system based on price leadership comparable to that already in existence in North America (see below) in order to support copper prices during cyclical downturns and to moderate price upswings when supplies were tight. These firms hoped that by bringing stability to the copper market, they could increase the attractiveness of copper to consumers relative to substitute materials (such as aluminum) whose price and supply were more stable.[12]

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[9] Ibid., p. 63.1.

[10] Ibid., p. 63.8.

[11] *Canadian Minerals Yearbook*, (various years); *Financial Post*, August 11, 1984, pp. 21-22.

The most significant attempt to stabilize the international copper market began in 1960. Downward pressure on prices in that year led the major producing firms to cut production by 10 to 15 percent. They also began separate price support operations on the LME, buying and stockpiling all of the copper offered for sale at 234 per ton. These actions supported the LME price at the 234 level until the end of 1963, when market conditions began to improve. When prices began to rise in 1964, producers increased output and began to sell off the copper they had stockpiled in the course of price support operations in 1962 and 1963. By 1965, all of the stockpiles had been exhausted, and prices continued to rise, stimulated in large part by the Vietnam War. The largest producing firms, anxious to avoid permanent market losses to cheaper substitute products, all pegged their prices at 236 per ton and instituted rationing schemes to allocate limited supplies at the lower producer price to traditional consumers. Producers raised prices a number of times, reaching a peak of 366 per ton in April 1966, but this was far below the LME price of 790 per ton. Consumers disliked the market rigidities created by the rationing scheme, but appreciated the lower prices. The international producer price system broke down in mid-1966 when the

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[12] Martin S. Brown and John Butler, *The Production, Marketing, and Consumption of Copper and Aluminum*, (New York: Praeger/The Economist Intelligence Unit, 1968), chapters ten and eleven; Sir Ronald Prain, *Copper: The Anatomy of an Industry*, (London: Mining Journal Books, 1975), chapter eight.

Chilean and Zambian governments forced the mining companies operating in their countries to increase prices to the LME level.[13]

This assertion of the developing countries' right to control the terms upon which their resources were sold[14] brought to an end an important case of tacit cooperation among firms in an oligopolistic industry to support and stabilize an important international mineral market. Tacit oligopolistic market management in this case was based on a high degree of trust among the firms involved and was accepted by the governments of the industrialized copper consuming countries. Because it was not backed by a formal agreement or by intergovernmental sanctions, tacit cooperation among producing firms was quite flexible in response to changing market conditions.

The instability of copper prices in the 1950s and 1960s posed severe problems for the developing copper producing countries. In the mid-1960s, these countries began to seek intergovernmental regulation of copper markets to deal with the problems of fluctuating prices and earnings.[15] In 1967, the four major developing country exporters (Zambia, Zaire, Peru, and Chile) responded to a sharp drop in copper prices by forming the Council of Copper Exporting Countries, commonly known by its French-language acronym, CIPEC. Their objectives were to facilitate the exchange of information on the copper market and to promote national control of the copper industries.[16]

During the next few years, CIPEC members made intermittent attempts to support and stabilize copper prices. During 1971 and 1972 "there was much talk of coordinated reduction of mine output by the four members to help correct the imbalance between supply and demand and improve prices. However, such murmurings of intent were never put into practice and the market soon began to discount the 'inspired leaks' which came after many cloak-and-dagger meetings held in Paris and other European capitals".[17] Canada was not involved in any in these attempts to influence the international copper market, although observers from Canada attended CIPEC meetings on a number of occasions.[18]

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[13] Prain, *Copper: The Anatomy of an Industry*, pp. 106-09; David N. Waite, "Copper", in Cheryl Payer, ed., *Commodity Trade of the Third World*, (London: MacMillan Press Ltd., 1975), p. 43.

[14] Waite, "Copper", p. 43.

[15] It was also at this time that developing producing countries began to nationalize copper mines and take other measures to ensure greater national control over production as well as marketing.

[16] Karen A. Mingst, "Cooperation or illusion: an examination of the intergovernmental council of copper exporting countries", *International Organization*, 30 (Spring 1976), pp. 280-01.

Canada's lack of interest in these LDC attempts to stabilize overseas copper markets was due in large part to its opposition to the militant, producer-only approach that CIPEC seemed to have adopted, and to Canadian officials' belief that the attempts were unlikely to succeed. Canada's lack of interest in international copper market stabilization was also rooted in the nature of international copper markets in the 1950s and 1960s. The developing countries' proposals aimed to reduce the extreme instability of the international copper market, but this goal did not have the same urgency for Canadian copper producers. A two-price system existed in the international copper market from the 1950s until the late 1970s.[19] As noted above, prices in the market outside North America were determined largely by trading on the LME and tended to fluctuate widely and rapidly. However, within the North American market, producers were able to exercise considerable influence over copper prices. The copper industry in the United States was highly oligopolistic, vertically integrated, and insulated to some degree from international markets by a tariff on imported copper. In addition, for much of this period, United States copper producers owned and controlled the bulk of Latin American copper production. Under these conditions, the American producers were able to establish a producer price system for domestic sales based on price leadership. Instead of allowing prices to be determined on an open commodity exchange like the LME, producers set posted prices and closely followed each other's infrequently made price changes.[20] The result was greater price stability; both the amplitude and frequency of copper price changes in the United States were much lower that for LME prices.[21]

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[17] Prain, *Copper: The Anatomy of an Industry*, p. 252.

[18] Theodore Panayotou, "The Copper Cartel and Canada: Likelihood and Implications of OPEC-type Strategies", *Resources Paper*, No. 32 (Vancouver: Department of Economics, University of British Columbia, January 1979), p. 3.

[19] This section on the two-price system draws on the following sources: Raymond R. Mikesell, *The World Copper Industry: Structure and Economic Analysis*, (Baltimore: The Johns Hopkins University Press for Resources for the Future, 1979), pp. 88-89, 111-12; Urquhart, *The Canadian Nonferrous Metals Industry*, pp.112, 118, 120; Brown and Butler, *The Production, Marketing and Consumption of Copper and Aluminium*, chapters ten and eleven; Prain, *Copper: The Anatomy of an Industry*, chapter eight.

[20] See discussion of tacit oligopolistic market management in chapter one.

Canadian producers benefited from stable U.S. copper prices more than did other foreign producers. Canadian producers faced lower transportation costs, and Canada was a preferred source of supply for many American mineral importers because of Canada's reputation as a secure, reliable supplier and the close business links between the two countries.[22] Canadian producers sold at U.S. producer prices in the United States and, with adjustments to account for the exchange rate, in the Canadian market.[23] Since approximately 75 percent of Canadian refined copper production was sold in the United States (35 percent) or Canada (40 percent) at these producer prices,[24] Canadian copper producers did not suffer nearly as much from volatile copper prices as did producers outside North America.

In fact, the Canadian government was concerned as much with excessively high copper prices during this period as it was with low prices. Canada is a consumer as well as a producer of copper. Domestic consumers, mainly metal fabricators, account for a greater share of mine output of copper (approximately 30 percent) than they do for any other base metal,[25] and the federal government acted during this period to protect this important domestic manufacturing industry. During the late 1960s and early 1970s, in the context of extraordinary demand stimulated by the Vietnam War, Ottawa put informal pressure on Canadian producers to keep domestic prices from rising to high open market LME levels. Informal pressure was accompanied by formal export restrictions at certain times of particularly tight supply in order to secure supplies for

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[21] Urquhart, *The Canadian Nonferrous Metals Industry*, p. 122.

[22] Ibid., pp. 21-22; Richard Shaffner, "The Resource Sectors of the United States and Canada: An Overview", in Carl E. Beigie and Alfred O. Hero, eds., *Natural Resources in U.S.-Canadian Relations. Volume I: The Evolution of Policies and Issues*, (Boulder, Colorado: Westview Press, 1980), p. 17; Jocob Kaplan, "U.S. Resource Policy: Canadian Connections", in Beigie and Hero, eds, *Natural Resources in U.S.-Canadian Relations. Volume I*, pp. 112-13, 118-19.

[23] Urquhart, *The Canadian Nonferrous Metals Industry*, pp. 120-21.

[24] Calculated from ibid., p. 121, and *Canadian Minerals Yearbook 1980*, p. 150.

[25] A substantial portion of this copper is later exported in semi-fabricated and fabricated forms; Urquhart, *The Canadian Nonferrous Metals Industry*, p. 121; Department of Energy, Mines and Resources, "The Canadian Nonferrous Minerals Industry to 1985", Mineral Policy Sector Internal Report, MRI 80/14 (June 1980), p. 5.

Canadian consumers. The cost to Canadian producers of these restrictions was considerable. Not only did they have to forego more remunerative exports, but some were even forced to buy copper on the international market to maintain valuable long-term marketing arrangements with foreign buyers.[26] From the Canadian government's perspective, a case might have been made for intergovernmental market management to limit market volatility upward, but this certainly was not the intention of the members of CIPEC.

1973 to 1980

The success of OPEC's moves to raise oil prices in 1973-74 triggered renewed attempts by developing copper producing countries to support copper prices. In June 1974, while the copper market was strong, CIPEC invited other producing countries and certain consuming countries to another ministerial meeting. Canada attended this meeting as an observer. However, observer countries were excluded from some of the critical meetings, and Canada had no part in the CIPEC member countries' announced agreement "to completely coordinate the policy to be followed in the world market".[27]

After prices dropped drastically in late 1974, CIPEC members agreed in November 1974 to a 10-percent production cutback and in April 1975 to a further 5-percent cutback.[28] Canada, along with a number of other non-CIPEC producers, was invited to join in these cutbacks but did not do so.[29] Copper producing companies in Canada made their own production cutbacks in 1974 and 1975, not in response to a government request to do so (there was none), but rather as the standard response of private producers in times of weak demand and low prices. These "cutbacks by private U.S. and Canadian mines were considerably larger than those of CIPEC members between 1974 and 1975", especially since most CIPEC members had not observed the agreed-upon cutbacks and some had even increased their exports.[30]

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[26] Urquhart, *The Canadian Nonferrous Metals Industry*, pp. 125-26; Department of Energy, Mines and Resources, "Mineral Policy Alternatives: a Background Essay", Mineral Policy Sector Internal Report, MRI 81 4 (January 1981), p. 7.

[27] Quoted in Department of Energy, Mines and Resources, "Canadian Minerals and International Economic Interdependence", Mineral Bulletin MR 162, (March 1977), pp. 14-15; Alan R. Winberg, "Raw Material Producer Associations and Canadian Policy", *Behind the Headlines*, 34(4) (1976), p. 14.

[28] Mikesell, *The World Copper Industry*, pp. 105-106.

[29] North-South Institute, *Commodity Trade: Test Case for a New International Economic Order*, volume 3 of *Canada North-South 1977-1978* (Ottawa: North-South Institute, 1978), p. 83.

The Canadian government gave some consideration to joining CIPEC in 1974-75. The argument in favour of Canadian participation concerned the volatility of copper prices and their current low levels. An EMR document published in 1976 stated: "Severe copper price fluctuations are a major cause for concern for all copper producing and consuming nations. For Canada they result in volatile copper export earnings and, occasionally, in government intervention to prevent dislocations in domestic copper supplies [a reference to the copper export restrictions imposed in the late 1960s and early 1970s; see above]. Canada should continue to consult with other producing and consuming countries on this and other problems of the world copper market".[31]

Nevertheless, EMR did not recommend that Canada join CIPEC, since its member countries were perceived to be quite militant and their objectives (never realized) were clearly to support prices through market sharing, i.e., those of a cartel. Opposition to Canadian membership in CIPEC was even stronger among copper mining firms and among other federal government departments, all of which perceived CIPEC as a cartel.[32] Consequently, the Canadian government decided not to join and stated that this was because of its "strong preference for producer-consumer cooperation" over producer-only action.[33]

After further unsuccessful attempts to coordinate production cutbacks,[34] the developing copper producing countries shifted their attention to UNCTAD. They hoped to create a producer-consumer international commodity agreement that would be more successful than had been producer-only attempts to regulate the market. A series of meetings was held under the auspices of UNCTAD's Integrated Programme for Commodities from 1976 to 1980. These meetings were the most important for Canada of all the IPC meetings.[35] The importance of the copper negotiations was due both to the major contribution made by copper to the Canadian economy (a larger contribution than made by any other IPC commodity) and to the diplomatic importance the developing countries had put on the copper negotiations as a test of the developed countries' willingness to respond to their demands for reform of international commodity trade. The diplomatic importance of the copper negotiations complicated matters in that the Canadian position had to be considered in terms not only of its impact on the Canadian industry, but also in terms of its impact on Canada's political relations with the Third World. Furthermore, the "integrated" nature of the IPC negotiations meant that whatever went on in negotiations for other IPC commodities would likely have an impact on the copper negotiations. Consequently, Canadian negotiators had to ensure that any positions they adopted in other commodity negotiations were consistent with Canada's position in the copper talks, and sought to ensure that no measures were incorporated into agreements for other commodities that could not be tolerated if applied to copper.[36]

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[30] Mikesell, *The World Copper Industry*, p. 106; Interviews.

[31] Department of Energy, Mines and Resources, "Copper", Mineral Bulletin MR 149, (July 1976), p. 35.

[32] Interviews; Garth Stevenson, "The Process of Making Mineral Resource Policy in Canada", in Beigie and Hero, eds., *Natural Resources in U.S.-Canadian Relations, volume I*, p. 186.

[33] EMR, "Canadian Minerals and International Economic Interdependence", p. 15.

[34] Panatoyou, pp. 28-29.

The first meeting on copper was held in March 1976, prior to the UNCTAD IV conference at which the Integrated Programme for Commodities was adopted. Developing copper producing countries pressed hard for the immediate creation of an international copper agreement. The developed countries, with Canada in the forefront, opposed the immediate establishment of an ICA and stalled in the hope that pressure for an ICA would dissipate. They insisted that further studies of the market were needed to determine what the problems were and whether an ICA would be an appropriate response. In order to defuse pressure for an ICA while still appearing willing to do something to meet developing countries' concerns, the developed countries advocated the creation of an autonomous producer-consumer consultative body without significant links to UNCTAD. This body would be concerned solely with improving the exchange of information and market transparency, and would not attempt to directly regulate copper trade. Canada and other developed countries argued that the creation of a consultative body was a necessary first step towards an eventual copper ICA, should it be decided after further investigation that one was necessary.[37]

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[35] Department of External Affairs, *Annual Review 1978*, (Ottawa: 1979), p. 24.

[36] Interviews.

It appeared that a consensus had been reached at the March 1976 meeting on the establishment of a copper study group. The creation of the study group would supposedly be the first stage of a two-stage process, with the second stage being the creation of an ICA for copper. The study group would conduct market research and consultations intended to discover whether an acceptable basis for an international copper agreement existed and, if so, which market intervention mechanisms should be used. The developing producing countries expected to proceed quickly to the second stage, while the developed countries hoped to stall the process at the study group stage.

By the time the next preparatory meeting on copper convened in September 1976, the UNCTAD IV conference had created the Integrated Programme for Commodities, and this inspired some developing producing countries to renew their demand for the immediate creation of an international copper agreement. This agreement would be created within the framework of the IPC and would have close ties to UNCTAD. The market would be regulated by means of a buffer stock, perhaps supplemented by export controls. The developed countries, with Canada taking a leading role, rejected the demand for the immediate creation of an ICA for copper and continued to press for the establishment of a copper study group at a series of largely fruitless UNCTAD copper meetings in late 1976 and in 1977.

Agreement again appeared to have been reached in February 1978 on the establishment of an intergovernmental consultative group on copper roughly along the lines proposed by the western developed countries. The group would be independent of UNCTAD, and "would continue to search for an acceptable basis for a commodity agreement". This meant that it could be depicted as the first stage of the two-stage process identified above, even though Canada and most other developed countries did not intend it to go beyond the first stage. The group would also "perform the functions of a study group, and search for and propose short-term solutions to the problems of the world copper market".[38]

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[37] See UNCTAD document series TD/B/IPC/COPPER/ for records of these meetings. Detailed information on Canada's position and the positions of other countries was gained in interviews.

The apparent consensus on the establishment of a consultative copper group broke down at the next UNCTAD meeting on copper, held in July 1978. The more militant developing copper producing countries, led by Peru, renewed their demand for an ICA and rejected the proposal for a consultative body as an attack on the goals sought by developing countries through the IPC.

By the time the sixth UNCTAD preparatory meeting on copper convened in February 1979, some developed countries were becoming anxious that progress be made to prevent copper from becoming a divisive political issue at the UNCTAD V conference, scheduled for May 1979. The United States, which had previously been one of the staunchest opponents of an international copper agreement, presented a proposal for an international copper agreement that would stabilize the market by means of a buffer stock. According to Canadian officials at the meeting, "Although it was stated to be an approach only and not a commitment to negotiate an agreement on copper, the U.S. delegation defended the scheme strongly during subsequent discussions and appeared to be firmly committed to it."[39] The developing copper producers were delighted by the U.S. proposal. Most other developed countries were unwilling to openly oppose the proposal, given the politically-charged atmosphere of UNCTAD commodity negotiations during this period. Nevertheless, the EEC, Japan, and Australia all indicated their doubts by calling for "further expert study" before creating such an agreement. The Canadian delegation also argued that insufficient preparatory work had been done to date to justify focusing on a buffer stock as the solution to the problems of the international copper market. The buffer stock proposed by the U.S. would be extremely expensive, yet studies had shown that it would be unable to stabilize the market. The meeting agreed to establish an intergovernmental group of experts to study the U.S. proposal and other possible measures.

Canadian officials concluded that this meeting had "carried the participants closer to a negotiating conference and closer to an international commodity agreement on copper. The idea of using some form of stocking arrangement as an element of such an agreement now has wide support and few vocal opponents."[40] Canadian officials saw a real danger that an agreement would be concluded despite Canadian opposition, putting Canada in the difficult position of choosing between the interests of an important domestic industry and Canada's reputation in the Third World as a sympathetic Northern country.

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[38] *The International Minerals Scene* 1(1) (July 1978), p. 5. This journal is published jointly by Energy, Mines and Resources and the Mining Association of Canada. Reports on commodity negotiations published in *The International Minerals Scene* were written by EMR officials.

[39] *The International Minerals Scene* 2(2) (March 1979), p. 2.

A meeting of the group of experts in July 1979 (after the UNCTAD V conference) revealed wide differences among the participating governments. The United States had done further work on its buffer stock proposal. France suggested that there was a consensus emerging in favour of a small buffer stock supplemented by voluntary supply management measures. Numerous smaller producing and consuming countries supported the French proposal. Other countries (including Chile and Zambia, two of the largest developing producing countries) favoured market stabilization measures but had doubts about the American buffer stock proposal. Canada joined with Britain, West Germany, and Japan in calling (again) for measures to improve market transparency and to facilitate consultations among producers and consumers. This was part of Canada's ongoing effort to divert attention away from ICA proposals by supporting the creation of a copper study group. Officials sensed that momentum had developed in recent meetings in favour of calling a negotiating conference to create an ICA along the lines proposed by France.[41]

However, pressure for a negotiating conference soon dissipated. At subsequent UNCTAD copper meetings, differences among the major participants proved irreconcilable. The United States backed away from its earlier support for a buffer stock agreement, and Canada (joined by most of the important consuming countries) continued to press for a study group rather than an ICA. Developing producing countries continued to demand that an ICA be created immediately and most refused to support the creation of a study group as a compromise measure.[42]

Although Canada consistently refused to become involved in LDC-initiated efforts to regulate the international copper market in the 1970s, this position was adopted only after much debate between certain Cabinet Ministers and their officials. Former Prime Minister Trudeau and some of his Cabinet colleagues took a great interest in North-South development issues and tended to favour a positive Canadian response to Third World demands for international economic reform. They initially felt that Canada, as a producer and exporter of copper, shared an interest with developing producing countries in copper market regulation.[43] Consequently, Cabinet pressed Canadian officials to take a more forthcoming stance in the IPC copper negotiations. Officials strongly resisted this pressure (for reasons explained below) and were eventually able to convince Cabinet that Canada's interests did not lie in copper market regulation. Nevertheless, the concerns expressed by Cabinet Ministers (and by officials responsible for Canada's diplomatic relations with developing countries) contributed to a Canadian stance in the copper negotiations that was considerably more forthcoming in its rhetoric (if not its substance) than would have been preferred by many officials. For example, Canadian diplomats talked about a copper study group as the first stage of a two-stage process even though they had no intention of ever agreeing to the creation of a copper ICA.[44]

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[40] Ibid., p. 4.

[41] *The International Minerals Scene* 3(4) (August 1979), pp. 4-5; interviews.

[42] Interviews.

Official Canadian opposition to regulatory schemes proposed by developing copper producing countries was rooted in the two-price system for copper described earlier. Until it broke down in the late 1970s, the two-price system provided Canadian producers with some insulation from the volatility and low prices that characterized the LME-centred international market. Thus, during most of the period when intergovernmental regulation of the international copper market was being discussed, Canada did not suffer as much from copper price instability as did developing producing countries. Furthermore, while developing producing countries perceived copper market instability as a problem needing correction, Canadian producing firms tended to treat the cyclical instability of the copper market as inevitable and to adjust accordingly.[45] These adjustments meant temporary unemployment for many miners in Canada, but the provision by governments of a safety net of unemployment insurance and other social welfare measures largely defused the potential for interest by copper industry workers in government intervention to support international copper markets. Perhaps for this reason, unions made no attempt to influence the government's position on the copper negotiations, and the government made no effort to solicit such input.[46] Also, fluctuations in copper export earnings do not have nearly as severe an impact on total Canadian export earnings as they do in the less diversified economies of the developing countries. These characteristics help to explain why neither private producers nor government in Canada perceived a need for intergovernmental regulation of the copper market.

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[43] Their view was shared by the North-South Institute, a research institute dedicated to promoting Canadian assistance for Third World development. See North-South Institute, *Commodity Trade*, pp. 58, 67.

[44] Interviews.

[45] Interviews.

LDC proposals for copper market regulation generated strong opposition in Canada because they threatened to impose heavy costs on Canadian producers. Canadian studies indicated that the proposed schemes would not stabilize copper markets, would be costly, and would be difficult to administer.[47] It was felt that the large number of producers, the differences among them in terms of costs of production and dependence on copper for export earnings and employment, and the fact that copper was often co-produced with other minerals all meant that a copper agreement would be unworkable. Canada also faced a special difficulty in that participation in any market-sharing scheme would inevitably require some degree of federal government involvement in distributing the burden of adjustment measures (e.g., export cutbacks) among producing firms and provinces each jealous of its "sovereignty" with respect to these sorts of decisions.[48]

Even if an ICA for copper had been considered workable, officials felt that the costs to Canada would greatly exceed the benefits. Most officials believed that it was extremely unlikely that Canada would benefit from any ICA that could possibly be negotiated given the positions of other producing and consuming countries. It was expected that Canada would suffer a loss of exports, market share, and revenues if an ICA was created. Studies by various departments and outside experts concluded that a pure buffer stock scheme would result in net revenue losses for producers, that export controls would penalize efficient exporters like Canada, and that an export restriction scheme would benefit non-exporting producers (such as the United States) more than exporting producers (like Canada) which would have to bear the burden of export cutbacks.[49] Studies also pointed to the very high cost of a buffer stock large enough to moderate price increases (estimates were in the range of $4-8 billion U.S.) and Canada's share (as a major producer) of this cost would have been substantial.[50]

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[46] Interviews.

[47] EMR, *Mineral Policy: A Discussion Paper*, p. 150; interviews.

[48] Interviews.

[49] Interviews; H. Labib and A.R.M. Ritter, "Stabilizing the International Copper Market: The Viability and Impacts of Alternative Market Management

One of the most important concerns in Ottawa was that, if an ICA were created under the auspices of UNCTAD's IPC, Canada would come under diplomatic pressure to absorb a disproportionate share of export cutbacks required to stabilize markets as a concession to developing countries. If this happened, Canada (and Australia, the other important developed copper exporter) would end up bearing a much larger share of the burden of support for developing countries than copper-importing industrialized countries.[51] An ICA could also cut into Canada's exports by propping up inefficient producers in other countries, or by encouraging increased production in developing countries if investors felt that enhanced market stability reduced the risks of investing in mines in the Third World.[52]

Finally, private Canadian producers (which were well represented on Canadian delegations to the UNCTAD copper meetings) were vehemently opposed to an ICA for copper. They felt that, given the UNCTAD context, a copper agreement would merely be a cover for an ambitious OPEC-style cartel. Alternatively, a large producer-consumer buffer stock might depress copper prices. Canadian producers did not feel any need for intergovernmental regulation to impart greater stability to the market. They had not suffered as much from instability as had overseas producers, and from their perspective instability was inevitable and not necessarily a bad thing. Downturns had always been followed

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Arrangements", *Canadian Journal of Development Studies* 2(1) (1981), pp. 109, 112.

[50] Mikesell, *The World Copper Industry*, pp. 198-99; interviews.

[51] C.J. Cajka, Minerals and Metals Division, Department of Energy, Mines and Resources, "UNCTAD Proposal for a Common Fund", Mineral Development Sector Internal Report MRI 614/77 (Ottawa, March 1977), pp. 17, 20 (this report was not a formal statement of government policy, but is indicative of official thinking on IPC-related issues); interviews. The UNCTAD Secretariat suggested in an early document that export restrictions should be allowed in a discriminatory manner to favour developing countries; Labib and Ritter, "Stabilizing the International Copper Market", p. 86.

[52] EMR, "The Canadian Nonferrous Minerals Industry to 1985", p. 12; Cajka, EMR, "UNCTAD Proposal for a Common Fund", pp. 1, 17; North-South Institute, *Commodity Trade*, pp. 58, 60.

by recoveries,[53] and as competitive, efficient producers they felt that when the recovery began they could gear up faster than overseas producers to take advantage of the recovery. Opposition to an ICA that would bring bureaucratic interference with their efficient and competitive operations was natural.[54]

Copper producers also shared many of the concerns of the government, particularly the fear that an ICA might stimulate investment in low-cost developing countries and the doubts about the workability of an ICA. The thrust of industry opposition is captured in the following quote from W.J. Barbour, Assistant Treasurer for Noranda, Canada's largest copper producer: "The present market system has its flaws, but replacement of the fundamental laws of supply and demand with bureaucratic manipulation of supplies and prices is likely to be an unqualified disaster in the long run".[55] Some government officials believe that the opposition of private Canadian producers to an ICA for copper, rather than the economic arguments against an ICA detailed above, was the main reason for the Canadian government's opposition to a copper agreement.[56] However, the two factors may be inseparable, since there were extensive consultations between government and industry from the earliest stages of the policy-making process and both groups held similar views of the impact of an ICA.

Canada's advocacy of a producer-consumer forum for copper had more to do with North-South diplomacy than it did with a belief in Canada that such a forum was necessary to deal with problems in the international copper market. As explained earlier, the developing countries had made the copper negotiations a central focus of their IPC diplomacy, and Ottawa felt that Canada could not turn its back on this pressure without risking its reputation in the Third World as a progressive northern country. The inclinations of the Prime Minister and some of his Cabinet colleagues, supplemented by some minor interest on the part of pro-development groups, also dictated that Canada appear forthcoming. The proposal for a producer-consumer forum was therefore supported by Canadian negotiators essentially as a tactic to save Canada's political skin at the lowest possible cost in terms of economic concessions.[57] Industry advisors from the large central Canadian firms were easily persuaded to support the idea, as they felt that by facilitating the exchange of market information the forum could moderate price fluctuations and limit the extent of industry recessions.[58] In the end, the militant developing producing countries rejected the proposal as not going far enough, and the talks collapsed without agreement on any measures to deal with the problems of the copper market. Canadian officials and their industry advisors were quite happy to see all the proposals die of exhaustion, but the fact that LDCs were immediately responsible for the deadlock allowed Canadian negotiators to claim that "we lost a marvelous opportunity" while breathing a sigh of relief.[59]

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[53] This attitude changed as a result of the prolonged downturn of the early 1980s, but was widespread in the mid-1970s.

[54] Interviews with industry spokesmen and government officials; North-South Institute, *Commodity Trade*, p. 85. Interviews with industry spokesmen revealed a widespread perception among producing firms that an ICA would require a high degree of government involvement in the day-to-day operations of private firms, and that this close regulation might be a prelude to nationalization.

[55] W.J. Barbour, "Background Paper Submitted by Noranda Mines Limited", in *The Canadian Perspective on Commodities* (collected papers of the Winnipeg Seminar on Commodities of the Canadian Group of the Trilateral Commission, Winnipeg, 27-28 November 1977), p. 14.

[56] Interviews.

The 1980s

The two-price system for copper broke down in 1978 as a result of the long-term trend towards greater competition in the global industry. Since the 1960s, nationalizations in developing countries had eroded the dominance of American-owned transnational corporations in international copper trade; new sources of supply had been developed in existing and new producing countries; and new production processes had been introduced which allowed production from smaller deposits and from new types of deposits to become competitive.[60] In response to increased competition from foreign suppliers, in mid-1978 the largest American producers changed their pricing formulas in such a way as to relate their prices much more closely to prices on the LME (the U.S. producer price had been above the LME price since mid-1976). This meant the end of an effective two-price system for copper.[61] Since that time U.S. and Canadian producer prices have followed open market prices very closely,[62] resulting in significantly greater price instability for Canadian copper producers.

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[57] Interviews.

[58] Barbour, "Background Paper Submitted by Noranda", p. 10. These executives helped Canadian officials to convince the more skeptical, free market-oriented B.C. producers to go along with the idea even though they did not support it; interviews with government officials and industry spokesmen.

[59] Interviews.

[60] Urquhart, *The Canadian Nonferrous Metals Industry*, p. 153; Mikesell, *The World Copper Industry*, pp. 28, 31; World Bank, Commodities and Export Projections Division, Economic Analysis and Projections Department, *Copper Handbook*, (February 1981), pp. III-1,3.

The Canadian copper industry has also suffered from very low prices (in real terms) for most of the decade. While prices in current terms have tended to rise since the early 1950s, the trend in terms of real prices was downward during the 1970s and early 1980s. After a brief respite in 1978-79, real prices fell to their lowest levels since the 1930s during the 1981-82 recession.[63] The recession hit copper harder than most other base metals.[64] Canadian producers and government officials initially put much of the blame for this trend on government-controlled producers in developing countries. They were seen to have maintained production even when markets were weak because of the social and political costs of creating unemployment in copper producing areas and their governments' need for the foreign exchange earned from copper exports.[65] As a result, "during the period of excess supply and low prices that characterized 1975-78, several U.S. and Canadian mines were forced to close owing to insufficient revenues, whereas government-controlled mine production in Chile and other countries was being expanded".[66]

Low copper prices in the early 1980s threatened the survival of certain high-cost Canadian copper mines. By 1984, mines with a combined annual capacity of approximately 170,000 tons had been closed due to low prices for copper and co-produced metals. An EMR report prepared in 1983-84 pointed out that

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[61] Mikesell, *The World Copper Industry*, pp. 112, 366.

[62] World Bank, *Copper Handbook*, p. V-1.

[63] *Globe and Mail*, May 19, 1983, p. B2.

[64] *Financial Post*, August 11, 1984, p. 2.

[65] Barbour, "Background Paper Submitted by Noranda", p. 4; EMR, "The Canadian Nonferrous Minerals Industries to 1985", p. 12.

[66] John W. Whitney, "Copper", in Carl E. Beigie and Alfred O. Hero, *Natural Resources in U.S.-Canadian Relations. Volume II: Patterns and Trends in Resource Supplies and Policies* (Boulder, Colorado: Westview Press, 1980), p. 309.

> Some of the highest cost Canadian copper mines continue to produce, in anticipation of improved market conditions and because costs of closing and reopening a mine would be considerable. Some producers have been consuming their available capital by continuing to operate, and other operations have survived only by mining material that is higher than average ore reserve grade. Such measures cannot be sustained over the long term. Consequently, a number of Canadian copper mines can be expected to close unless there is a notable improvement in copper market conditions.[67]

Canadian producers had also instituted severe cost-cutting programs which resulted in layoffs and reduced incomes for mine workers.

During 1983-84, private Canadian copper producers and EMR believed that the problems facing the industry had the character of an unusually serious cyclical downturn and that market conditions would soon improve. This belief meant that there was little interest in intergovernmental measures to support or stabilize international markets. Some officials felt that a producer-consumer forum might be useful in helping private producers and their governments to convince developing producing countries to respond to market conditions. However, the predominant view in Ottawa in the early 1980s was that the risk of reviving LDC pressure for ICA proposals that could hurt Canada was too great to risk for the limited benefits of a producer-consumer forum. Developing producing countries had made it clear in the IPC copper negotiations that they were uninterested in measures that would force them, rather than developed copper-producing countries, to cut production.[68]

By 1985, hopes that the downturn was temporary had faded. Canadian producers' shipments increased to approximately 730,000 tons in 1985 from only 612,455 tons in 1982, but prices remained extremely low. Average prices in 1985 were 64.9 U.S. cents per pound, only marginally higher than the historic low of 64.2 cents recorded in 1983.[69] Most Canadian producers had brought their costs down closer to global averages, but still faced severe competitive pressures. Low prices for co-produced zinc and nickel exacerbated their problems.[70]

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[67] EMR, *Canada's Nonferrous Metals Industry: Nickel and Copper*, p. 33.

[68] Interviews in summer 1983 with government officials and industry spokesmen.

[69] *Canadian Minerals Yearbook 1985*, pp. 23.11, 23.13; EMR, *Canada's Nonferrous Metals Industry: Nickel and Copper*, p. 28.

Government officials and industry executives interpretated these conditions as evidence that the industry's problems were not merely cyclical. The world economy had grown strongly out of the 1981-82 recession, but copper markets and prices had not strengthened. While much blame for the current situation is still put on government-controlled production in developing countries, it was increasingly realized that some developing countries like Chile do have very low costs of production even without government subsidies, and can make a profit even at current prices. Canadians involved in the mining industry are also now more willing to admit that government subsidies to the industry are common in developed countries like Canada as well as in certain developing countries.[71]

Recognition of the seriousness of the problems facing the copper industry emerged at a time when fears of LDC-inspired market regulation were fading. These changes in the situation of the Canadian industry and in the international political environment led the Canadian industry and government to support a new attempt to create a copper study group under UNCTAD auspices. It would be modelled on the International Lead-Zinc Study Group (ILZSG), and would promote market transparency and provide a forum for consultation among producing and consuming governments and firms. Executives of Noranda sought to generate interest in the idea in Canada and abroad beginning in 1984.[72]

The fact that the idea has gained international attention since 1985 is largely due to the efforts of the United States. American copper producers were especially hard hit in the early 1980s. The problems of weak demand and low prices afflicting all producers were compounded in the United States by relatively low grades of copper ore and by the strength of the U.S. dollar.[73] According to some Canadian officials, U.S. producers have also received less support from their government than have copper firms in Canada and other countries.[74]

The American copper industry has lobbied hard for protection from foreign competition. In 1984 it persuaded the International Trade

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[70] *Canadian Minerals Yearbook 1985*, pp. 23.2, 23.7.

[71] Interviews with government officials and industry spokesmen.

[72] Interviews with government officials and industry spokesmen.

[73] *Canadian Minerals Yearbook*, 1984, p. 23.3.

[74] Interviews.

Commission to recommend that trade barriers be imposed to protect the industry from subsidized imports. This action was targeted primarily at Chile; American copper producers and their supporters in the Reagan administration recommended that Canada be exempted from import quotas. President Reagan refused to implement the International Trade Commission's recommendation for protection, and encouraged the search for other ways to help the industry.[75] While Canadian producers were not the main target of the unsuccessful contingency protection action, they and the federal government had to devote considerable amounts of time and money to their defence.[76]

After President Reagan rejected the imposition of trade barriers, a Congressional "Copper Caucus" was formed and a number of bills to restrict copper imports were introduced by Congressmen from copper producing states. Given the opposition to import restrictions on the part of President Reagan and copper consuming industries, none of these bills was given much chance of passage. In September 1985, a bill was introduced that called for the establishment of a government-to-government International Copper Action Commission modelled on the ILZSG. The commission would be charged with reviewing conditions in the industry, considering action that individual countries might take to improve market conditions, and encouraging product research and development. One of the unstated intentions of the sponsors of this bill was that the commission would provide a forum in which exporters to the U.S. market could be persuaded to voluntarily limit their exports.[77]

The Canadian government and industry helped to generate support in the United States for an international copper commission. In the wake of the American industry's attempt to secure import protection, Noranda executives consulted with executives of American copper producing and consuming industries and suggested to them the idea of a copper study group modelled along ILZSG lines as an alternative to import protection. At the same time, EMR officials met with their counterparts in Washington and with American copper industry executives to promote the idea. Few American copper firms co-produce lead or zinc, and most were therefore not familiar with how the ILZSG had helped to stabilize markets for those minerals.[78]

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[75] *Mining Journal*, August 17, 1984, p. 107; September 7, 1984, pp. 161-62; *Globe and Mail*, June 21, 1984, p. B12; August 31, 1984, p. B4.

[76] Interviews.

[77] Interviews.

The idea quickly gained strong backing from Members of Congress and from the Reagan administration, and it has been pursued vigorously. The former saw it as a way to do something to help their constituents, and the latter liked the fact that it did not rely on import controls or formal government market intervention. Many other copper producing countries were predisposed to support the creation of a producer-consumer forum for copper. As noted above, there had been support in Canada for the idea since 1984. Some CIPEC members, disappointed by their inability to influence the market, were reportedly interested in the formation of a broader and less interventionist body. Consequently, when American officials consulted with their counterparts in other leading copper producing and consuming countries in early 1986 to gauge the level of support for such an organization, the response was generally favourable.

Formal preparatory meetings were held in December 1986 and April 1987 under UNCTAD auspices. While there was support for the American proposal from Canada and a few other governments, many participants expressed reservations. Chile was adamant that the proposed producer-consumer forum have no market intervention functions, and feared (realistically) that the American motive was to create a body in which Chile could be pressured to limit its exports. Other developing countries shared Chile's concern. None of these countries suggested that the negotiations focus on an ICA instead of a non-interventionist body, although there were brief references to the IPC. According to Canadian officials, developing countries did not recognize the valuable role that a producer-consumer forum could play in inhibiting U.S. protectionism and did not believe that improving market transparency could have much of a positive effect on the market. Most EEC governments were unenthusiastic about the American proposal. Their consuming industries believed that existing industry organizations, the International Wrought Copper Council and the World Bureau of Metal Statistics, already served the intended function of the proposed organization. The Japanese delegation expressed similar reservations.

The United States had hoped that the preparatory meetings would lead directly to the convening of a negotiating conference, but this was not possible given the reservations expressed by other governments. Another preparatory meeting was scheduled for November 1987. There is a strong political interest in the U.S. in reaching agreement quickly to respond to pressure from domestic copper producers for assistance.

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[78] Interviews.

Canada strongly supports the creation of a copper study group. As in the case of earlier proposals, it is hoped that by improving market transparency, a study group would help producers to match supply more closely to demand and thereby achieve more remunerative prices. In particular, the Canadian industry hopes that a study group will provide a forum in which to persuade developing producing countries to avoid overproduction which depresses copper prices. This is a long-term objective; no one expects that developing producing countries can be directly pressured to reduce the output from existing operations, but rather hopes that promoting a better understanding of market dynamics will persuade developing producers to avoid excessive new investment during periods of temporarily high prices.

In the short term, the main hope is that the existence of a producer-consumer forum for copper could help to forestall protectionist pressure in the United States. Due in part to the actions of the Congressional copper caucus, the recent Congressional trade bill includes provisions for "fair trade" in resource products that could be used to target imports from Canada. Canadian officials believe that if a producer-consumer forum for copper had existed in 1984, the American copper industry might not have launched a contingency protection suit. Discussions in the forum might have convinced Chile of the need to exercise export restraint and might have helped the American industry and American trade officials to realize that Chile's strong market position was based on low production costs rather than government subsidies.

Canadian officials were initially wary of what they perceived as the interventionist tendencies of certain developing producing countries. However, the absence of pressure for market intervention from CIPEC members at the 1986 and 1987 preparatory meetings helped to reduce this concern. Similar fears initially led Canada and other developed countries to shy away from UNCTAD as a forum for copper study group negotiations despite a September 1984 UNCTAD offer to provide such a forum. These fears have eased in the wake of the positive experience with recent negotiations for an international nickel study group held under UNCTAD auspices.[79]

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[79] Information on the copper study group negotiations comes from interviews and correspondence with a government official.

Copper prices have rebounded in recent months. Unexpectedly strong demand has combined with reductions in mine capacity to bring a welcome (to producers) period of tight supply. Since the beginning of 1987, prices have risen from the $0.60 (U.S.) per pound range of 1984-86 to the $0.85 range. Analysts are divided on the issue of how long these higher prices will last; some view them as temporary given the structural problems of excess inflexible capacity and weak demand, while others believe that higher prices will persist as a smaller and leaner copper industry shares in the recovery from the recession of the early 1980s.[80] The improvement in the market has not as yet diminished producers' interest (or increased consumers' interest) in the proposed copper study group.[81]

Iron Ore

1960s and early 1970s

As in the case of copper, most of the pressure for intergovernmental regulation of the international iron ore market has come from developing countries. These countries have long been concerned by declining real prices for iron ore. A group of developing producing countries met in 1968 and 1969 to discuss the problem of declining iron ore prices, but no decision was taken on concrete measures to improve market conditions. UNCTAD sponsored two meetings of iron ore producing and consuming countries in 1970 and 1972, and at both meetings developing exporting countries called for the indexation of iron ore prices to steel prices. The major consuming countries, which clearly benefited from the existing arrangements for iron ore trade, were uninterested in changing the status quo.[82]

Canada shared the opposition of the major consuming countries to an ICA, fearing that in a situation where world trade in iron ore was "growing very rapidly . . ., a formal agreement might stimulate vast surpluses, encourage inefficient production, or discourage new investment ventures, depending on the price level fixed".[83] Canada was experiencing rapid growth in its production capacity in the early 1970s as a result of large mine investments made in the late 1960s,[84] and apparently feared that an ICA might interfere with the inflow of investment and the resulting growth in production and exports.

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[80] *Globe and Mail*, August 26, 1987, p. B21; August 18, 1987, p. B2; *Financial Post*, May 25, 1987, p. 28.

[81] Interviews.

[82] Nappi, *Commodity Market Controls*, pp. 146-47; United Nations document TD/B/C.1/125, p. 5.

1973 to 1979

The developing exporting countries were very disappointed with the response of the developed countries to their concerns and decided to form a producer association. The Iron Ore Producers Group first met in February 1973 and agreed to establish a group of experts to study and recommend solutions to the problems of the iron ore market. The group invited Canada, Australia, and Sweden (the largest iron ore exporters among the industrialized countries) to join as members or participating observers. These countries applied for observer status in October 1973,[85] and took part in a meeting called in November 1974 to study a proposal for a producer-only association. The strength of iron ore demand encouraged certain developing exporting countries to try to emulate OPEC and support iron ore prices by means of unilateral producer action. Just as OPEC members were calling for the indexation of oil prices to the prices of industrial goods, these iron ore producers sought to index iron ore prices to the price of steel.

Canada, Australia, and Brazil rejected the proposal for an iron ore producer association because it made no provision for representation of the interests of consuming countries. Since these three countries were the largest exporters of iron ore, the proposal was redrafted to explicitly exclude producer-only regulation of the market and to stress that the goals of the association would be to facilitate consultations and the exchange of information. Nevertheless, Canada, Brazil and the Soviet Union refused to join the Association of Iron Ore Exporting Countries (usually known by its French acronym, APEF) when it was created in

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[83] Jean-Luc Pepin, "Canada's Trade with Developing Countries", Address by the Minister of Industry, Trade and Commerce at the University of Windsor, November 6, 1970, *Statements and Speeches* 70/16 (Ottawa: Department of External Affairs), p. 8.

[84] Department of Energy, Mines and Resources, "Iron Ore", Mineral Bulletin MR 148, (July 1976), p. 21.

[85] EMR, "Iron Ore", p. 28.

April 1975.[86] Canada did indicate that it would join the association if its membership was broadened to include consuming countries.[87]

Canada decided not to join APEF only after considerable debate within the government. Advocates of membership were able to make a more credible case for Canadian membership in APEF than could have been made for Canadian membership in CIPEC, since the APEF members were perceived to be less militant and less committed to cartel-like action.

Support for Canadian participation in the association came largely from officials in EMR who felt that APEF could help to overcome structural problems facing producing and exporting countries in the international iron ore market. These officials attributed the unsatisfactory downward trend in real price for iron ore to the oligopsonistic structure of the international iron ore industry. "Widely dispersed and competing sources of supply are usually confronted by concentrated demand markets ... Under these market conditions iron ore prices suffered an uninterrupted decline (in real terms) throughout the sixties and early seventies, despite an increase in the average iron content and quality of iron ores traded".[88] In the United States, steel producers set the prices at which they bought iron ore from affiliated mines, including those in Canada, while iron ore purchases in Western Europe and Japan were concentrated in the hands of a small number of agencies in each country. Iron ore consuming steel companies had, in the view of these EMR officials, taken advantage of their monopsony power and their integration into iron ore production to "exercise a strong influence on the long-term supply situation. The steel companies stimulated an expansion of production facilities at a rate commensurate with long-term over-supply with resultant downward pressure on prices".[89]

EMR officials were also concerned with the related issue of market transparency. Vertical integration in the world-wide industry (most Canadian iron ore production, for example, was owned and controlled by U.S. steel companies during the 1970s) and the concomitant absence of an arm's-length market made it very difficult for Ottawa to determine whether Canada was deriving "fair" returns from iron ore production and whether appropriate investment decisions were being made. The problem was compounded by the secrecy of the iron ore producers themselves. They had built the industry and the social infrastructure in the producing areas and felt that the government had no right to demand information or to be involved in corporate decisions.[90]

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[86] Nappi, *Commodity Market Controls*, p. 148.

[87] Winberg, "Raw Material Producer Associations and Canadian Policy", pp. 16-17.

[88] EMR, "Iron Ore", pp. 20-1.

[89] Ibid., pp. 21 (quotes), 14, 23-24.

These concerns about declining prices and the lack of market transparency led many EMR officials to support the efforts of developing countries to correct the market imbalance between producers and consumers. As a 1976 EMR report commented, "a more coordinated marketing approach by major exporters, augmented by the formulation of the Association of Iron Ore Exporting Countries, has affected the bargaining strength of consumers". It went on to note that the NIEO demands of the developing countries "may modify world market structures for iron ore production and consumption from a period of relative consumer strength in the sixties to a more equitable balance of bargaining power between buyers and sellers in the mid-seventies".[91]

Consequently, EMR's initial recommendation in internal debates over Canadian membership in APEF in the mid-1970s was that Canada should join. This recommendation was supported by some in the Department of External Affairs who saw Canadian membership as a way to demonstrate Canada's solidarity with Third World concerns.[92] The political argument for membership was not as compelling in the case of iron ore as in the case of copper, however, because the developing countries themselves were split over the issue of iron ore market action. Certain large Third World producers did not favour concerted efforts to support iron ore prices, and Brazil, the largest exporter of iron ore among the LDCs, had refused even to join the association.

On the other hand, there were strong forces opposing Canadian membership in APEF. These can best be understood by examining the structure of the Canadian iron ore industry in the 1970s. Canadian iron ore production during this period was dominated by mainly U.S.-owned steel companies which formed joint ventures (some involving Canadian steel companies, usually as minor participants) in the late 1940s and early 1950s to develop the vast iron ore deposits in the Quebec-Labrador region. Most of the iron ore produced at these mines was exported to the parent U.S. steel companies.[93] Dependence on the U.S. market declined somewhat during the 1960s and 1970s as export markets were developed in Western Europe and Japan.[94] Nevertheless, in 1980 the United States still accounted for 54 percent of total Canadian iron ore exports, with Western Europe taking 37 percent and Japan 6.5 percent.[95] In 1976 EMR calculated that 77.10 percent of Canadian iron ore productive capacity was U.S. owned, 22.40 percent Canadian owned, and only 0.50 percent owned elsewhere.[96]

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[90] Interviews.

[91] EMR, "Iron Ore", p. 21.

[92] Interviews.

The policy implications of the links between Canadian iron ore production and American steel companies were clear and powerful. Canadian iron ore producers were vehemently opposed to Canadian membership in APEF and, indeed, to any intergovernmental regulation that might interfere with exports of iron ore to parent steel companies in the United States.[97] They were especially opposed to any suggestions of attempts to raise the price at which those export sales were made. Canadian producers also feared that participation in APEF could lead to pressure to coordinate production with their competitors in the Third World. The American parent steel companies were concerned that they could be subject to anti-trust prosecution in the United States if their Canadian subsidiaries participated in price-fixing arrangements at the behest of the Canadian government.[98]

These concerns of Canadian iron ore producers were taken up in interdepartmental meetings and in Cabinet by the Department of Industry, Trade, and Commerce. EMR officials sympathetic to Canadian membership in APEF believe that the opposition of American-owned iron ore producers in Canada was the main reason for the Canadian decision not to join the association.

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[93] William T. Hogan, "Iron Ore", in Beigie and Hero, eds., *Natural Resources in U.S.-Canadian Relations, Volume II*, pp. 16-17, 21-23; EMR, "Iron Ore", p. 4.

[94] In some cases, the development of these markets was accompanied by equity participation by steel producers from these countries in the producing Canadian mines; see Hogan, "Iron Ore", pp. 19-21, 24-25.

[95] *Canadian Minerals Yearbook 1980*, p. 228.

[96] EMR, "Iron Ore", p. 4.

[97] Canadian steel producers which import iron ore from affiliated mines in the United States also opposed intergovernmental regulation that would threaten to interfere with this trade. However, these companies did not perceive APEF to be as cartel-like as did Canadian iron ore producers, and their opposition to Canadian membership was muted; interviews.

[98] This and the following four paragraphs are based on interviews.

Another argument against Canadian membership was the traditional concern that Canada might upset some of its most important trading partners if it joined APEF. The likely American reaction was clear, given the views of U.S. steel companies as conveyed through their Canadian iron ore-producing affiliates. Canada had just concluded a framework agreement for expanding trade with the EEC, and some policy-makers felt that joining what might be perceived as a cartel was inconsistent with Canada's efforts to diversify its export markets and reduce dependence on the United States.

Some EMR officials felt that Canada was in a strong enough market position in 1975 to join the association without triggering retaliation from importers. Iron ore demand was projected to increase, and Canadian producers had been reducing their dependence on the American market by diversifying into the European and Japanese markets. The bargaining position of resource producers seemed particularly strong in the wake of OPEC's success in driving up the price of oil and in the context of the resource boom that was driving up the price of many raw materials.

Brazil's decision not to join APEF was important in this context. It meant that at least one of Canada's major competitors would remain outside the producer association. Brazil would presumably appear to be a more attractive source of supply than APEF members to consumers wary of resource cartels. Some officials suggested that Canada might have joined the association if Brazil had also done so. Brazil was known to be opposed to market regulation that could interfere with its rapidly expanding exports of iron ore. Its membership would therefore have precluded cartel-like action by APEF and allayed consuming countries' fears that the association was a cartel.

Canada's decision not to join APEF may also have been influenced by the perception that the likelihood of success of intergovernmental iron ore market regulation was extremely small. Iron ore production is widely dispersed among a large number of countries with substantially different costs of production. According to one experienced observer, the "absence of concentration of reserves, production and exports, and the wide differences in political orientation of the major exporting countries would make effective collusion quite difficult".[99] The Canadian government shared this view, noting in one study that the potential viability of a producer-only association for iron ore was "very limited".[100]

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[99] Raymond F. Mikesell, "International Collusive Action in World Markets for Nonfuel Minerals: Market Structure and Methods of Marketing Control".

Iron ore was included in UNCTAD's Integrated Programme for Commodities, and four meetings were held in 1977 and 1978. Nothing came of these meetings because there was little interest among most countries in any sort of intergovernmental action. Even the largest developing exporting countries were uninterested in iron ore market regulation.[101] Canada attended all of the meetings and, according to one senior official, made "the right North-South noises" without committing itself to anything. Canada opposed an ICA for iron ore, but might have supported a study group had the other countries been interested in the idea. However, they were not and the Canadian government was happy to see interest in intergovernmental arrangements dissipate. The Canadian delegation was not even very enthusiastic about suggestions for an annual statistical program and further studies of the international market, arguing that existing information was adequate.

Canada opposed an ICA for iron ore for basically the same reasons that it opposed producer-only market action; regulation could interfere with the growth of Canadian exports, and was strongly opposed by Canadian producers.[102] Canadian officials also feared that if an ICA for iron ore was negotiated under UNCTAD auspices, Canada (as a developed country) would come under diplomatic pressure to absorb a disproportionate share of the burdens of export cutbacks and other measures that might be used to stabilize the market.[103] The absence of interest in an ICA by developing iron ore producing countries meant that Canada did not suffer any diplomatic costs in adhering to this position.

1980s

In the late 1970s, the Canadian iron ore industry went into a severe depression from which it has not fully recovered. New, lower-cost sources of supply were developed in Australia and Brazil in the early and

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United States Department of State, Bureau of Intelligence and Research, External Research Study, July 25, 1974, p. 20.

[100] EMR, *Mineral Policy: A Discussion Paper*, pp. 150-52.

[101] Christopher P. Brown, *The Political and Social Economy of Commodity Control* (New York: Praeger Publishers, 1980), p. 205.

[102] Interviews.

[103] Cajka, EMR, "UNCTAD Proposal for a Common Fund", pp. 18-19.

mid-1970s, and by the late 1970s international markets had become intensely competitive.[104] Canadian exports to Europe and Japan declined especially sharply as Brazil made strong inroads into the former market and Australia took over much of the latter. These trends caused renewed Canadian dependence on the U.S. market in the late 1970s and early 1980s. However, American steel companies had themselves been suffering since the early 1970s from stagnant demand for steel and growing competition from steel producers in Japan, Korea, Brazil and other developing countries. As a result, Canada's exports to the U.S. also fell. Total Canadian production fell sharply from a peak of 49.8 million tons in 1979 to 33.0 million tons in 1983.[105] Production cuts necessitated by the decline in foreign demand for Canadian iron ore led to mine closures and large-scale unemployment in the mining regions.[106] Employment in Canadian iron ore mines and associated facilities fell to approximately 10,000 in 1983 from over 16,500 in 1979.[107]

The depressed conditions in the Canadian iron ore industry in the early 1980s stimulated an internal government review of Canada's non-membership in APEF. In *Mineral Policy: A Discussion Paper*, a major policy review published in December 1981, EMR suggested that "there is evidence ... that the present practice of maintaining a cautious, and somewhat negative, attitude towards producer associations should be reconsidered in the case of producer associations whose main purpose is to share data and market intelligence, rather than engage in cartel-like actions".[108] The reference was clearly to APEF,[109] and this suggestion was taken up in the internal review.

The arguments in favour of Canadian membership in APEF were not as strong in 1982-83 as they had been in 1975. Some officials felt that Canada should join for the same reasons as had been advanced in the earlier debate (to counter the oligopsony power of iron ore consumers and to increase market transparency), but others felt that conditions had changed so much that it would no longer be in Canada's interest to join. Opposition to membership among the iron ore producing firms themselves was still strong, and the desire to avoid offending consuming countries was even stronger in light of renewed Canadian dependence on the American market. The integration of Canadian iron ore mines and American steel producers was believed by Canadian officials to have given Canadian ore producers some protection from international competition: "Without U.S. parent linkages and the protection of their heavy investment in Canada, the [high-cost] Quebec-Labrador mines would be hard-pressed to compete in today's market. They certainly would not be developed in today's economic circumstances in comparison with other world developments".[110]

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[104] For details on changes in production and trading patterns in the mid to late 1970s, see: Hogan, "Iron Ore", pp. 12-3, 28, 37-41; EMR, "Iron Ore", pp. 16, 29; "Federal Government Contribution", in *The Canadian Perspective on Commodities*, p. 25; and R.S. Girardin and B.M. Monaghan, "Submission by the Iron Ore Company of Canada", in *The Canadian Perspective on Commodities*.

[105] EMR, "The Canadian Iron Ore Industry", p. 7; *Canadian Minerals Yearbook 1985*, p. 32.8.

[106] *Globe and Mail*, November 3, 1982, pp. 1-2.

[107] EMR, "The Canadian Iron Ore Industry", p. 6.

[108] EMR, *Mineral Policy: A Discussion Paper*, p. 5.

[109] Interviews.

Since Canadian producers were having great difficulty competing in overseas markets, the overriding concern of producers and policy makers in Canada was to maintain Canada's position in the United States market. In this context, some EMR officials who previously supported Canadian membership in APEF now felt that a move to join at this time would be irrelevant and foolish. Membership would do little to address the main problem facing the industry (maintaining a share of the U.S. market) and would invite American retaliation.[111]

Consequently, EMR recommended in 1983 that Canada should not join the association.[112] While there was a feeling that the Canadian industry might benefit from expanded international information exchange and from international consultations on the problems of the industry, APEF was not viewed as an appropriate forum.[113] Other departments, particularly the Department of External Affairs (which had by this time incorporated the trade sections of the Department of Industry, Trade, and Commerce), continued to oppose Canadian membership strongly.[114] Interestingly, there was no pressure for international action from domestic groups affected by the downturn in international iron ore markets. Despite mine closings and severe unemployment in mine towns, mineworkers' unions did not call for international action. The lack of union input appears to be due to the generous severance allowances given to laid-off long-time employees, and perhaps in part also to declining union membership which reduced the resources and the activities of union headquarters. Unions paid more attention to getting financial compensation from the mining companies and the federal and provincial governments than they did to measures that might ameliorate structural market problems.

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[110] Department of Energy, Mines and Resources, "Industry-Government Relations, Mineral Issues, and Policy Framework: A Background Paper", Mineral Policy Sector Internal Report, MRI 81/1, p. 15.

[111] Interviews.

[112] Interviews.

[113] EMR, "The Canadian Iron Ore Industry", p. 25.

[114] Interviews.

Continuing problems in the Canadian iron ore industry since the early 1980s have led to a reassessment of Canadian policy. Exports to the United States have been affected by the contraction of the U.S. steel industry in the face of weak demand and strong international competition. Technological changes in steel production and recycling of scrap steel have reduced the amount of iron ore required to produce a given amount of steel, further reducing demand for Canadian iron ore. The overall result was a sharp drop in Canadian iron ore exports to the United States, from approximately 19 million tons in 1981 to 12.1 million tons in 1984 and only 7.4 million tons in 1985.[115] Canadian exports have become much more diversified, as the share accounted for by the United States declined from 54 percent in 1980 to only 29.5 percent in 1985. Japan's share was relatively stable at approximately 10 percent in the early 1980s but dropped to only 8.0 percent in 1985. The share of other importers has risen correspondingly; the EEC accounted for 56.6 percent of Canadian exports in 1985, up from 38.7 percent in 1981, and the share of other countries (mainly developing) rose from 2.6 to 5.7 percent over the same period.[116]

A second change in the mid-1980s has been the breakdown of the North American iron ore pricing system. As demand for iron ore in North America declined, prices became much more closely aligned with world market prices, which have traditionally been lower than North American prices. While the Canadian iron ore industry is still largely owned by American steel producers, the latter no longer buy the bulk of their iron ore requirements through intra-corporate arrangements at above-market prices. Instead, they now purchase a larger proportion of the iron ore they get from their Canadian subsidiaries through long-term contracts at international market prices. This change, combined with the growing reliance of all Canadian producers on overseas sales. has made the Canadian industry much more subject to international market competition.[117]

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[115] EMR, "The Canadian Iron Ore Industry", pp. 7, 16; *Canadian Minerals Yearbook 1985*, p. 32.8.

[116] *Canadian Minerals Yearbook 1985*, p. 32.8; EMR, "The Canadian Iron Ore Yearbook", pp. 7, 16; interviews.

The decline in the dependence of Canadian producers on privileged intra-corporate access to the United States market has heightened Ottawa's interest in an international producer-consumer study group for iron ore. The need to forego participation in international efforts to assist iron ore producers in order to avoid offending the American steel industry is no longer so pressing, since the latter now accounts for a much smaller proportion of Canadian production. Officials have therefore been exploring various options for international cooperation to improve market transparency and to prevent a further erosion of prices. Membership in APEF is still rejected because the absence of consumers in that organization conflicts with Canada's policy of participating only in organizations in which consumers are also represented. The association has not intervened in the market in recent years because of opposition from certain member countries (including Australia and Sweden). but India. Venezuela, and other developing country members continue to call for intervention to support prices. On the other hand. financial difficulties and the ineffectiveness of the organization to date have led APEF members to consider broadening the organization's membership to include consuming countries. If consumers were invited to join. and most of them did so (an unlikely prospect, given APEF's history of interest in market regulation and its current financial difficulties). Canada would give serious consideration to membership.

At present. the most attractive option under active consideration is the creation of a consultative body under the auspices of UNCTAD. Recently. Canada and other developed countries have been working to shift the focus of UNCTAD meetings on iron ore away from market intervention. These efforts led in 1985 to a decision to establish an Intergovernmental Group of Experts on iron ore which was to meet for two years as a producer-consumer consultative body. The first meeting of the Group of Experts was held in October 1986. This was a low-key meeting at which limited progress was made toward the creation of a statistical and consultative body. Canadian officials think that this group might form the basis for a more permanent UNCTAD organization modeled on the ILZSG. The prospects for this are uncertain. however. as the negotiations that led to the establishment of the Group of Experts were very difficult and the United States decided not to participate. Whether the EEC and Japan would support an iron ore study group is as yet unclear. A second meeting of the Group of Experts has been postponed because certain countries have not done the preparatory work necessary for a productive meeting. This delay reflects the lack of interest on the part of many countries in intergovernmental cooperation regarding iron ore.[118]

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[117] Interviews.

As has been the case whenever the issue of international measures to assist the iron ore industry has come up in Canada, the initiative for an iron ore study group came from the government. Neither producing firms nor mining unions and communities have pressed the government to take this action. The industry's reaction to the initiative has been mixed. According to government officials, executives of Canadian iron ore companies have shown some interest, but are wary of working too closely with developing producing countries that have traditionally called for cartel-like market intervention. The American firms that own Canadian iron ore production facilities continue to be strongly opposed to intergovernmental action, and this attitude has dominated the official positions of U.S.-owned iron ore producers in Canada. Even though there is strong support in Ottawa for an iron ore study group, the Canadian government has adopted an officially neutral stance towards the idea because of the opposition from American-owned iron ore producers.[119]

Tungsten

1962 to 1972

The first move towards intergovernmental consultations on tungsten was taken in 1962 when Bolivia requested that the United Nations convene an international meeting to consider the establishment of a price stabilization scheme for tungsten. The Bolivian initiative led to the establishment in January 1963 of an Ad Hoc Tungsten Committee to promote cooperation among tungsten trading countries. In 1965, after the first UNCTAD conference in 1964, the Ad Hoc Committee on Tungsten was transformed into the UNCTAD Committee on Tungsten.[120] Canada had opposed the establishment of a formal ICA for tungsten but supported the idea of a study-group-like forum for tungsten.[121]

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[118] Interviews.

[119] Interviews.

The UNCTAD Committee on Tungsten functioned from 1965 to 1973 "essentially as a study group", improving statistics and providing a forum for consultations on market trends.[122] Canadian officials and Canada Tungsten believed that these discussions served a worthwhile purpose in improving understanding of the international tungsten market, much as the ILZSG was doing for lead and zinc.[123]

Bolivia and some other developing producing countries frequently called for the creation of a more formal regulatory agreement, but the major consuming countries and Canada consistently resisted this pressure. Resolutions were passed at both UNCTAD II in 1968 and UNCTAD III in 1972 calling for intergovernmental consultations on tungsten market regulation,[124] but the consuming countries and Canada continued to resist moves towards formal regulation.

1973 to 1983

Tungsten prices fell in 1971 and 1972, leading to increased pressure from developing producing countries for a system of international economic provisions to support tungsten prices. OPEC's success in raising oil prices in 1973-74 inspired developing tungsten-producing countries to press harder for action. Committee on Tungsten meetings in 1973, 1974, and 1975 were dominated by consideration of various stabilization schemes. The developing producing countries pressed for the adoption of a system of minimum and maximum prices to be supported by export and/or production controls. The consuming countries, with the support of Canada, rejected the idea of a formal ICA for tungsten and called instead for the creation of a permanent tungsten study group.

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[120] J. van Diest, "A review of international attempts to stabilise the tungsten market", in *Proceedings of the First International Tungsten Symposium* (London: Mining Journal Books, 1979), p. 148.

[121] Interviews.

[122] van Diest, "A review of international attempts to stabilise the tungsten market", p. 149.

[123] Interviews.

[124] van Diest, "A review of international attempts to stabilise the tungsten market", p. 149.

The main reason for Canadian opposition to the developing producing countries' proposals was the concern that formal market regulation could freeze market shares to Canada's disadvantage. By the mid-1970s it was apparent that Canada had very large tungsten reserves, and Canadian officials and industry executives believed that the Canadian tungsten industry had a tremendous potential for growth. The market control schemes proposed by other producers threatened to interfere with the realization of that potential. Canadian officials also believed that tungsten was not technically suited to formal regulation, given the high degree of product differentiation and the importance of intra-corporate arrangements in international tungsten trade. Finally, Canada Tungsten was strongly opposed to formal tungsten market regulation, for many of the same reasons underlying official Canadian opposition. The consuming countries had advanced the proposal for a producer-consumer forum for tungsten mainly as a device to deflect pressure for a formal ICA, and while Canada had some sympathy for this motive it also saw a need for greater transparency in tungsten markets. In particular, officials felt that it would be useful to get more information from the People's Republic of China (PRC) and the Soviet Union, the two largest producers.[125]

By 1976 it had become obvious to the developing producing countries that they were getting nowhere in their efforts to convince the consuming countries and Canada to create an ICA for tungsten. At a November 1976 Committee on Tungsten meeting, most of the consuming countries refused even to discuss an UNCTAD Secretariat document outlining a possible agreement. Consequently, the producers (other than Canada) took the issue to the UNCTAD Trade and Development Board, hoping that higher level political pressure would encourage consumers to be more forthcoming. In April 1977 the Trade and Development Board called for the establishment of an ad hoc group of experts to study proposals for the stabilization of the international tungsten market. This group met for three sessions in 1977-78 but was unable to reach any consensus on actions to be taken.[126] Australia (a tungsten producer) introduced a proposal for tungsten agreement modelled on the International Tin Agreement, which was supported by all major producing countries except Canada. France and the Soviet Union were the only consuming countries to support the Australian proposal. "The [other] consumers, goaded by the Australian initiative, proposed a Producer-Consumer Forum similar to the International Lead and Zinc Study Group."[127] Canada did not oppose the Australian initiative, since it had been intended mainly as a focus for discussion. Canada also had some sympathy with the frustration of the other producing countries, which had been "brought on by the consumer countries' avoidance of every effort to discuss major issues."[128] Instead, Canada made its own proposal for the negotiation of a framework agreement for tungsten. This would be the equivalent of an ICA without provisions for market intervention. Canadian diplomats saw the framework agreement approach as a way to respond to the other producers' demands for an ICA without actually regulating the international tungsten market.[129]

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[125] Interviews.

[126] van Diest, "A review of international attempts to stabilise the tungsten market", pp. 150-51; interviews.

Meetings on tungsten in 1978 continued to be dominated by fruitless debates between proponents of an ICA and proponents of a producer-consumer forum. In June 1978, in an attempt to bridge the divide between producers (except Canada) and consumers (joined by Canada), the French delegation submitted a proposal for the immediate creation of a producer-consumer forum which would be transformed into an ICA once sufficient information was available to permit agreement on specific mechanisms of intervention. A number of producing countries supported the French proposal as a basis for discussion, as did some minor consuming countries. The five largest consuming countries (the U.S., the U.K., Japan, West Germany, and Sweden) refused to discuss the French proposal because of its provisions for future market regulation.[130]

Canada immediately rejected the French proposal. It was felt that the adoption of the proposal would simply lead to ongoing arguments regarding when the movement to an ICA should occur. Officials were also wary of committing Canada to an agreement which involved the introduction of measures on a step-by-step basis before it could be known what effect they would have on the market. Finally, Canadian officials viewed the initiative simply as a ploy by France, which is not an important producer or consumer of tungsten, to appear sympathetic to the aspirations of developing countries.[131] Despite its opposition to the consideration of proposals for market regulation, Canada joined with Australia in attempting to keep the dialogue among producing and consuming countries from collapsing. Canadian officials were concerned that several producing countries might band together in a cartel if the UNCTAD talks collapsed; Bolivia had already proposed such a move.[132]

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[127] *The International Minerals Scene*, 1(1) (July 1978), p. 7.

[128] Ibid., p. 7. This report was written by an unnamed EMR official.

[129] van Diest, "A review of international attempts to stabilise the tungsten market", p. 151; interviews. It is not clear how the framework agreement would have differed except in name from the producer-consumer forum proposed by the consumer countries.

[130] *The International Minerals Scene*, 1(2) (September 1978), p. 4; van Diest, "A review of international attempts to stabilise the tungsten market", p. 151.

The developing producing countries secured the passage of resolutions in the UNCTAD Trade and Development Board and at UNCTAD V in 1979 calling for the convening of a negotiating conference to create an ICA for tungsten. However, the major consuming countries continued to resist attempts to negotiate an ICA. Discussions in the Committee on Tungsten in 1979 and the early 1980s continued to focus on the French proposal, but no progress was made.[133]

1980s

Canada continued to press for the establishment of a study group for tungsten in meetings of the Committee on Tungsten in the early 1980s. Canadian officials began to see a greater need for such a group as the value of Canadian production and exports increased. While Canada and other western countries publish extensive statistics on their production, consumption, and trade, the Soviet Union and the PRC have been highly secretive about their tungsten industries. Canadian officials believe that Soviet and Chinese exports have been destabilizing forces in international markets, and have therefore sought to involve the two communist producing countries in a study group intended to improve market transparency.[134]

Some developing producing countries have become more receptive to proposals for a study group in the face of Northern opposition to formal market regulation. At the 15th session of the Committee on Tungsten in 1983, agreement was reached on the establishment of a Sessional Working Group (SWG). This group was "intended to provide a forum for more open discussion, including the active participation of industry advisors", and to conduct studies of market conditions.[135] Canada had been pressing for the creation of such a group in the hopes that the involvement of industry representatives would contribute to a less politicized atmosphere than that in the UNCTAD Committee on Tungsten, and that the SWG might eventually be transformed into a permanent producer-consumer forum along the lines of the ILZSG. Interestingly, the United States had also supported the SWG and has participated in subsequent meetings, in contrast to its lack of interest in a similar arrangement for nickel (see below). Canadian officials attribute American interest in tungsten discussions to the strategic importance of tungsten in armaments production and the consequent U.S. interest in ensuring access to adequate tungsten supplies.[136]

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[131] Interviews.

[132] *The International Minerals Scene*, 1(2) (September 1978), p. 5.

[133] van Diest, "A review of international attempts to stabilise the tungsten market", p. 152; interviews.

[134] Interviews.

The SWG was formally created at the 16th Session of the Committee on Tungsten in December 1984. Canada succeeded in ensuring that the terms of reference of the group did not include discussion of economic provisions for price stabilization.[137] The first meeting of the SWG was held in December 1985, in conjunction with the 17th session of the Committee on Tungsten. Canada felt that this was a productive meeting, as discussion of formal price stabilization measures was minimized and useful progress was made on improving market transparency. The SWG seemed to be evolving into the study group sought by Canada. The Canadian industry was represented at the meeting and also felt that the session had been useful.[138]

The second meeting of the SWG, held in November 1986, was much less successful from the Canadian perspective. With markets remaining depressed and few private industry representatives in attendance (few felt they could afford to send representatives to the meeting), some developing producing countries revived their demands for a formal ICA to support and stabilize tungsten prices. These demands were again rejected by the consuming countries and Canada. Some progress was made on improving market transparency, but doubts were raised anew about the prospects for a permanent study group for tungsten.[139]

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[135] *Canadian Minerals Yearbook 1983-84*, p. 62.2.
[136] Interviews.
[137] Interviews; *Canadian Minerals Yearbook 1983-84*, p. 62.2.
[138] Interviews; *Canadian Minerals Yearbook 1985*, p. 63.3.
[139] Interviews.

Some tungsten producers, frustrated by the industrialized nations' opposition to formal tungsten market regulation, have joined together in a producer association intended to support the market by unilateral action. The dramatic decline in tungsten prices in 1983-85 was the immediate stimulus for this effort, although informal discussions on the subject had been going on for a number of years. The first meeting of the so-called "Thai Group" was held in March 1985. Bolivia and Thailand led the discussions, which were attended by a number of developing producing countries and by Australia, acting as an observer. Canada was invited to the meeting but declined to attend, due to its opposition to producer-only attempts to regulate international mineral markets. Canadian officials are also still concerned that Canadian involvement in tungsten market regulation could lead to pressure to limit Canadian exports. The first Thai Group meeting discussed the establishment of an export price range as well as the use of buffer stocks, export controls, and production cutbacks to prop up tungsten prices.[140] A second meeting was held in September 1985, but agreement could not be reached on an export price range.[141] Agreement on critical issues continues to elude the Group and Canadian officials do not expect that it will have a significant influence on the market.[142] At the same time, ongoing LDC interest in a formal regulatory scheme for tungsten weakens the prospects for the creation of the tungsten study group sought by Canada.

Conclusions

Copper, iron ore, and tungsten have different international market structures, and the Canadian industries have faced different market trends and problems. Nevertheless, the international politics surrounding the three minerals have shared important similarities. All are produced and exported both by developing countries and by Canada and other developed countries. Some of the former group have demanded formal international market regulation by means of ICAs or cartels; these demands were especially insistent during the height of Third World mobilization on commodity issues in the 1970s. While there has occasionally been sympathy in Ottawa for the objectives of the developing producing countries, official Canadian policy has been to oppose all schemes for formal international regulation of these markets. Canadian opposition is due to the shared (for the most part) government-industry belief that regulation would distort international markets to Canada's disadvantage.

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[140] *Financial Times* (London), March 13, 1985, p. 42; interviews.

[141] *Mining Journal*, September 27, 1985, p. 250.

[142] Interviews.

Canada's opposition to market regulation has been shared by most of the industrialized countries that provide the largest markets for the minerals in question. The opposition of the industrialized consuming countries has ensured that no regulatory schemes have been created for these minerals. The greatest threats to Canada's policy of opposition to market regulation have come when industrialized consuming countries have decided to support Third World regulatory proposals for North-South diplomatic reasons (e.g., the United States in copper for a brief period in 1979, France in tungsten). These departures from traditional Northern opposition to international commodity market regulation have not involved enough countries or lasted long enough to result in the creation of ICAs.

As an alternative to formal market regulation, Canada has pressed for the creation of international producer-consumer study groups for all of these minerals. Study groups would address real problems of market transparency and instability that officials (occasionally joined by the industry) believe have damaged Canadian interests. Canadian interest in study groups increased during the 1980s due to the severe structural and cyclical problems faced by the copper, iron ore, and tungsten industries. Ottawa and some mining firms hope that study group consultations would encourage foreign producers to behave in a manner more consistent with market stability in an environment of weak demand.

There has also been a large political component in the motives underlying Canada's advancement of study group proposals. During the 1970s, when Third World diplomatic pressure for market regulation was at its peak, study group proposals were advanced in part to defuse LDC pressure for ICAs and for producer-only action without putting Canada in the position of seeming unsympathetic to the concerns of the developing countries. During the 1980s, the idea of a copper study group has been supported in part as a method for reducing protectionist pressure in the United States. Thus, study groups have been supported by Canada both to address market problems and as a political tactic to defuse foreign political pressure for more drastic forms of government action.

3. LEAD, ZINC, AND NICKEL

Introduction

Lead, zinc, and nickel provide the best examples of Canada's policy preference for international producer-consumer study groups. The International Lead and Zinc Study Group has existed with strong Canadian support since 1960. Canada has made a major diplomatic effort since the late 1970s to create a similar organization for nickel. In both cases,[1] interest in intergovernmental cooperation was triggered by serious market problems. The fact that international attention has focused mainly on study groups rather than formal ICAs or cartels reflects the dominance of privately-owned producers located in developed countries. This dominance has eroded since the 1970s in the case of nickel. There has never been concerted pressure from developing countries to regulate the lead and zinc or nickel markets because the major producers are all developed countries (including the Soviet Union).

Canada is the world's largest producer of zinc and the fourth largest producer of lead (after the Soviet Union, the United States, and Australia). Since Canada's domestic consumption of these minerals is relatively low, Canada is also the world's largest exporter of zinc and the second largest exporter of lead.[2] The International Lead and Zinc Study Group is an intergovernmental organization whose membership includes most of the important producing and consuming countries. Representatives of private producing and consuming firms play an active role in the organization as advisors on national delegations. The ILZSG is widely credited with helping to stabilize international markets for the two minerals and has provided the model for study groups proposed by the Canadian government for other minerals including copper, iron ore, nickel, tungsten, and tin.

Canada dominated the world nickel market until the late 1960s. Since then, Canada's position has been eroded by sweeping structural changes in the international nickel industry. The severe depression that hit most international mineral markets in the early 1980s had hit nickel earlier, in the mid-1970s. This meant that Canada became interested in international efforts to ease market problems much earlier in the case of nickel than it did in the cases of most other minerals it exports.

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[1] Lead and zinc will be considered as one case, since they are generally coproduced in Canada and there is one study group for both.

[2] *Canadian Minerals Yearbook 1985*, p. 69.14; Energy, Mines and Resources Canada, *Canada's Nonferrous Metals Industry: Lead and Zinc: A Special Report* (1984), pp. 1, 39.

Lead and Zinc

The formation of the ILZSG "was prompted by mine closures and unemployment in many countries resulting from a sharp price decline in 1957". The initiative to establish the group was taken by the Interim Coordinating Committee for International Commodity Arrangements of the United Nations, which called a meeting of producing and consuming countries in September 1958.[3] Shortly after this meeting, the United States imposed tariffs and quotas on imports of lead and zinc, a move which harmed Canada and other producers including Peru, Mexico, and Chile. The Canadian government, in consultation with the domestic lead-zinc industry, participated actively in three subsequent meetings during 1958 and 1959 which led to the formal inauguration of the ILZSG in January 1960.[4] Some producing countries had called for the adoption of more ambitious measures such as an ICA, but Canada and other producing countries were opposed to formal regulatory arrangements. The proposal for a study group was supported by the Canadian government and private Canadian producing firms because improved market transparency and international consultations might help to stabilize markets and because the existence of a study group would tend to deflect pressure for more ambitious and interventionist measures.[5]

The ILZSG has enhanced price stability and supported price levels in three ways. First, one of the main purposes of the group is to improve the collection and dissemination of market information and to undertake studies of various aspects of the world situation for lead and zinc. The information exchanged in ILZSG meetings and the information and studies published by the organization have enabled individual producers and consumers to respond in more appropriate ways to market developments. The ILZSG "has played an important role historically in portraying up-to-date balances of world supply and demand that enabled the world lead and zinc industry to plan effectively with regard to market trends".[6] For example, accurate information on consumption trends helps producers to avoid increases in production that could not be absorbed by the market without forcing prices downwards. In this context, it is worth noting that industrial organization economists have identified good market information as one of the prerequisites for tacit oligopolistic market management (see chapter one). Since the major world markets for both lead and zinc have been characterized by producer pricing systems based on price leadership for much of the period covered by this study (see below), to the extent that the ILZSG improves market information, it improves the ability of producers to tacitly pursue cooperative marketing strategies to stabilize markets.

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[3] Department of Energy, Mines and Resources, "Zinc", Mineral Policy Series, Mineral Bulletin MR 159 (July 1976), p. 40; International Lead and Zinc Study Group, mimeograph, London, January 1979.

[4] EMR, "Zinc", p. 40-41; Donald J. Patton, "The Evolution of Canadian Federal Mineral Policies", in Beigie and Hero, eds., *Natural Resources in U.S.-Canadian Relations, volume I*, p. 223.

[5] Interviews.

Second, the other main function of the group is to "provide opportunities for appropriate intergovernmental consultations on international trade in lead and/or zinc", and to "consider possible solutions to any special problems" in lead and zinc markets. The group may even make "suggestions and/or recommendations" to member governments.[7] What has evolved from this is a system of informal, voluntary intergovernmental and intercorporate management of lead and zinc markets. During discussions of the market situation and projected levels of supply and demand, what one industry spokesman characterized as "moral suasion" is applied to those producers or governments whose actions threaten to upset the market. Emphasis is put on the idea that "we've all got to do some cutting" when the market is characterized by high inventories and surplus production. As an example of moral suasion, Canada was criticized by Australia and by the session chairman at the Thirtieth Session of the ILZSG in October 1985 for its provision of subsidies required to enable the Faro lead-zinc mine in the Yukon to reopen during a period of low mineral prices.[8]

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[6] *The International Minerals Scene*, 1(1) (July 1978), p. 8. Many government documents refer to this function of the ILZSG.

[7] International Lead and Zinc Study Group Document LZ/13, 13 September 1960, p. 1.

[8] Energy, Mines and Resources Canada, "Thirtieth Session of the International Lead and Zinc Study Group, October 17-24, 1985", mimeograph, pp. 11-12.

On occasion, recommendations about production levels are made *during meetings of the* group, and these are then implemented on a voluntary, independent basis by the group members.[9] For example, shortly after the group was formed in 1960, producing countries (including Canada) agreed upon and implemented a "voluntary arrangement ... to restrict production of lead and zinc as a means of sharing the burden of reduced U.S. imports".[10] At a meeting in July 1978, countries which had exercised restraint in production appropriate to then-depressed market conditions were praised, and many delegations "hoped that the pressure of recognition would encourage other countries to exercise restraint and speed up the return to orderly markets".[11] In November 1978, the group suggested "that in view of the many uncertainties in the immediate outlook ... for zinc, continuing caution in production policies by individual producers was necessary in order to maintain the improvement in the market situation achieved in 1978".[12]

Since most of the ILZSG's work is conducted in private, it is difficult to determine exactly how much impact it has on markets. Nevertheless, the above evidence indicates that there is an element of intergovernmental collaboration to supplement the tacit oligopolistic market by means of producer pricing systems based on price leadership.[13] It should be emphasized that cooperative measures are purely voluntary and therefore differ substantially from formal ICAs and cartels. It is also true that the extent of voluntary cooperation varies with the attitudes of the ILZSG members. For example, at a recent meeting the United States delegate stressed "that it is for each individual firm to judge and decide for itself how to react" to market conditions discussed at ILZSG meetings.[14] At other times (the early 1960s, for example), there appears to have been a greater willingness to explicitly discuss collaborative efforts.

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[9] Interviews with government officials and industry spokesmen.

[10] Patton, "The Evolution of Canadian Federal Mineral Policies", p. 223.

[11] *The International Minerals Scene*, 1(2) (September 1978), p. 5.

[12] *The International Minerals Scene*, 2(1) (January 1979), p. 4.

[13] It should be emphasized, as noted in the introduction, that producer price systems based on price leadership do not necessarily involve explicit collaboration among firms, but rather may evolve in stable oligopolistic industries in which the number of producers is small enough to permit them to recognize their interdependence and to have some influence on prices (i.e., they are not pure price takers in an atomistic industry). Again, the term "management" is used to distinguish what happens in the international lead and zinc industry from the freely competitive market norm, and does *not* imply formal collaboration or collusion.

Third, the meetings provide an opportunity for representatives from producing firms from around the world to meet without the fear of violating national anti-trust laws, since producer-consumer study groups are acceptable under both American and European anti-trust laws. The private lead and zinc producing industry is well represented at ILZSG annual meetings; the Canadian delegation, for example, typically consists of 3-5 government officials and 10-12 industry advisors representing all of the major Canadian producers. According to some government officials, industry representatives take advantage of the opportunity to meet privately outside formal ILZSG meetings and exchange information not discussed during the formal intergovernmental study group sessions (for example, about production plans). Canadian officials condone private meetings among industry representatives, and some regard them as a particularly helpful contribution of the ILZSG to "greasing the wheels" and keeping things running smoothly in the international industry.[15]

There has been very little international interest in formal regulatory schemes for lead and zinc. There was some discussion of the possibility of an international commodity agreement for lead and zinc during the mid-1960s, but it was not felt that one was necessary.[16] Lead and zinc were briefly considered for inclusion in UNCTAD's Integrated Programme for Commodities in 1976, but were not because most of the major producers of both minerals are developed countries and because none of the developing exporting countries are significantly dependent on exports of lead and/or zinc.[17] French government representatives within the ILZSG raised the possibility of creating a formal ICA in the mid-1970s, but the suggestion generated very little interest among other countries.[18]

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[14] EMR, "Thirtieth Session of the International Lead and Zinc Study Group", p. 12.

[15] Interviews with Canadian government officials. Some officials expressed the view that what goes on in private meetings may border on collusion. Other officials denied that explicit collusion (on prices and market sharing, for example) occurs, as did industry spokesmen. In light of the constant concern about violating anti-trust laws among firms in oligopolistic industries, it seems unlikely that explicit private agreements are made.

[16] United Nations Document TD/B/4, February 1965.

[17] EMR, "Zinc", p. 39.

[18] Interviews.

The lack of international interest in formal regulatory schemes reflects a number of characteristics of the international industry. First, lead and zinc production is dominanted by private firms rather than government-controlled producers, and private firms tend to prefer unregulated markets. Second, few of the important producers are developing countries, the traditional proponents of formal ICAs. Third, the relative stability of the worldwide industry has meant that few have seen the need for intergovernmental regulation. Finally, the existence of the ILZSG has made more formal international cooperation unnecessary.

The Canadian government has given strong and active support to the ILZSG and has shown no interest in more formal schemes for intergovernmental regulation of lead and zinc markets. Membership in the group is open to consuming as well as producing countries, and Canada has a stated preference for producer-consumer over producer-only associations. The involvement of consumers has also made the group more effective in terms of promoting understanding of market trends. The concentration of lead and zinc production and consumption in a small number of predominantly western industrialized countries has facilitated the creation and operation of the ILZSG. The informal and voluntary nature of the institution (made possible in part by the political, social, and cultural homogeneity of the major participants) eliminates most of the doubts about technical, administrative, and political viability that have plagued schemes for more formal and binding regulation of mineral markets.

The Canadian lead-zinc industry strongly supports Canada's participation in the ILZSG. Industry spokesmen are well represented in ILZSG deliberations. They like the fact that involvement in the ILZSG does not entail formal intervention in international marketing, and believe that the information exchanges and consultations that take place in the group enhance market transparency and help to stabilize markets by enabling individual firms to more closely match supply with demand. Industry spokesmen also feel that with the ILZSG in place it is unlikely that pressure would ever develop in UNCTAD for an ICA or other measures that could damage their interests.[19]

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[19] For industry views that cover some of these points, see H.T. Fargey, "Submission by Cominco Ltd.", and Kenneth H.J. Clarke, "Notes for Discussion of Price and Earnings Stabilization", both in *The Canadian Perspective on Commodities*; additional information gained from interviews with industry executives.

The Canadian government and the lead-zinc industry share the view that intergovernmental regulation of lead and zinc markets would be unnecessary and costly. They are generally satisfied that the ILZSG has made a useful contribution to stability without the rigidities and distortions introduced by formal ICAs. They also doubt that formal regulation would work, citing the recent fiasco with the International Tin Agreement. At the time of the Integrated Programme for Commodities debates in UNCTAD, a representative of the Canadian industry argued "that Canada would lose its position in foreign markets and would be faced with financing the surplus production of Third World countries during times of oversupply" if ICAs were created.[20]

Commodity agreements for lead and zinc are also viewed in Ottawa as unnecessary because of the generally satisfactory performance of lead and zinc markets, at least when compared to other mineral markets. Lead and zinc prices have been more stable than the prices of other minerals such as copper.[21] Lead prices have declined (in real terms) since the 1950s, mainly because of declining demand. One of lead's main uses was as a gasoline additive, but this market virtually disappeared as governments in the industrialized countries have moved to ban leaded gasoline because of its adverse effects on health and the environment. Lead prices have also suffered from the development of an active secondary market in recycled lead. Zinc prices, on the other hand, have been fairly constant in real terms. The zinc industry weathered the recession of the early 1980s better than most mineral industries (see below). The value of zinc production in Canada far exceeds the value of lead production, and zinc market conditions therefore tend to dominate production decisions and producer profits in Canada. Consequently, poor lead market conditions have been more than offset by relatively healthy zinc market conditions. As Canadian mining industries go, the lead-zinc industry has been unusually stable, to the benefit of producing firms and their employees. It is therefore not surprising that there is no interest in Canada in formal international stabilization arrangements.

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[20] Harold T. Fargey of Cominco, quoted in North-South Institute, *A Balance Sheet of Third World/Canada Relations*, Report and Issue-Papers by the North-South Institute for the International Foundation for Development Alternatives (Ottawa: North-South Institute, April 1979), p. 14.

[21] Urquhart, *The Canadian Nonferrous Metals Industry*, pp. 130, 131.

The producer pricing systems that exist for both lead and zinc and the consultations in the ILZSG have contributed greatly to this satisfactory price performance. International markets for both minerals are highly oligopolistic, with a small number of producers accounting for a large share of overall production and trade. In these circumstances, systems of producer pricing based on price leadership have prevailed in many regional markets. Producer pricing systems have existed in North American and in other world markets for zinc throughout the period covered by this study. A producer price system existed for lead in the North American market before the downturn in the early 1980s. North American lead prices are now based closely on the LME price, which has always prevailed in markets outside North America.[22]

Prices for lead and zinc have been higher and more stable in markets characterized by producer price systems based on price leadership than in more competitive markets. This is especially true of the American market as compared to overseas markets for both minerals. Transportation costs from overseas production sites and U.S. tariffs have made it possible for American producers to hold lead and zinc prices somewhat above outside market prices.[23]

Canadian producers have benefited from the fact that a large proportion of their sales are made in the U.S. market, where the producer price systems result in higher and more stable prices than prevail in other world markets for lead and zinc. Canadian lead and zinc producers have enjoyed privileged access to the American market because of the close business links between the two countries. Since Canadian producers establish prices for sales in the Canadian market at roughly the same level as U.S. producer prices,[24] sales in the home market also benefit from the higher and more stable U.S. producer prices. Canadian producers have complained about the excessive fluctuations in the LME price for lead,[25] obviously preferring the greater stability provided by producer price systems based on price leadership. This was not a particularly significant problem before the breakdown of the North American producer price system for lead, since exports of lead to overseas markets are a minor proportion of total Canadian exports of lead and zinc. The problem is worse now that North American prices are more closely linked to the LME price, but the impact on the industry as a whole has been mitigated by the relative stability of the more important zinc market.

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[22] Department of Energy, Mines and Resources, "A Review of the World and Canadian Zinc Industry", Mineral Policy Sector Internal Report MRI 80/12 (June 1980), pp. 7, 9; Department of Energy, Mines and Resources, "A Review of the World and Canadian Lead Industry", Mineral Policy Sector Internal Report MRI 80/15 (July 1980), p. 10; Urquhart, *The Canadian Nonferrous Metals Industry*, pp. 112-13, 127, 133.

[23] Urquhart, *The Canadian Nonferrous Metals Industry*, pp. 130, 132, 137; EMR, "A Review of the World and Canadian Zinc Industry", pp. 9, 11; EMR, "A Review of the World and Canadian Lead Industry", p. 16.

[24] Urquhart, *The Canadian Nonferrous Metals Industry*, pp. 128, 135.

The lead and zinc industry was hurt by the recession of the early 1980s, but not as badly as the copper, iron ore, nickel, and many other Canadian mineral industries. Stability in lead and zinc markets is rooted in the stability of the ownership structure of lead and zinc production. Copper and nickel production has become increasingly dominated by government-controlled producers (now accounting for 40 to 50 percent of non-communist world production) which tend to maintain production at pre-planned levels for social or economic reasons. In contrast, lead and zinc production is still dominated by privately-owned transnational mining companies based in the industrialized countries. Only around 20 percent of non-communist world lead and zinc production is accounted for by government-controlled firms. In fact, concentration of ownership of lead and zinc production is actually increasing. Privately-owned mineral producers seek to maximize profits and therefore tend to be more responsive to market conditions. They are more likely than government-controlled producers to cut production when markets are weak to reduce their costs and to avoid depressing prices. Thus, the continued dominance of large private firms has contributed to the stability of lead and zinc markets in the late 1970s and 1980s.[26]

The international zinc market has become somewhat more volatile in the 1980s, but the producer price system did not break down despite widespread discounting from posted prices during the depths of the recession. When demand for zinc fell, producers responded quickly by cutting back high-cost production to keep supply and demand in rough balance. "Although the price of zinc dropped significantly in both nominal and real terms, the deviation from the long-term trend line was less than that of most other metals. Most major zinc producers including Canadian companies had large losses during the recessionary period. However, these losses were, in general, not as severe as those experienced in other commodities".[27] Zinc market conditions improved unsteadily after the recession, but producers generally exercised enough self-discipline to permit prices to return to remunerative levels.[28] Canadian officials credit the ILZSG with helping producers to exercise self-discipline in production and pricing policies.[29]

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[25] Fargey, "Submission by Cominco Ltd.", p. 5.

[26] EMR, *Canada's Nonferrous Metals Industry: Lead and Zinc*, pp. 13, 38; interviews.

Recent trends in the international lead market are less favourable. Demand for lead has been stagnant during the 1980s. Consumption fell sharply during 1980-83 due to the global recession and to the phasing out of leaded gasoline in many industrialized countries. The growth of an active secondary market in lead also tended to depress prices. Severe competitive pressures led to the breakdown of the North American producer price system early in the decade. Long-run demand growth is projected to be modest at best, and prices are not expected to recover very much from the historic lows reached in 1984-85.[30] Despite these market problems, Canadian officials believe that the lead industry has come through a period of severe structural change better than the copper industry even though the problems faced by the latter were less severe. Consultations in the ILZSG are credited with helping lead producers to understand market trends and to exercise the necessary self-discipline.[31] Recent upward pressure on lead prices has been interpreted as an indication that "the lead industry has shrunk to fit the market",[32] although there are some doubts that the improvement can be sustained.

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[27] EMR, *Canada's Nonferrous Metals Industry: Lead and Zinc*, p. 12; see also John Davies, Noranda Sales Corporation, "Structural Changes in the Canadian Zinc Market", in M.J. Wojciechowski, ed., *Structural Changes in the World Mineral Industry: Implications for Canada* (Proceedings of the Fifteenth CRS Policy Discussion Seminar, September 9-11, 1985, Kingston, Ontario) (Kingston, Ontario: Centre for Resource Studies, Queen's University, 1986), p. 61.

[28] Excessively optimistic predictions of demand growth led to overproduction and low prices in late 1985, but production was again cut and prices returned to remunerative levels by mid-1986. There have been doubts about the likelihood of self-discipline after the Canadian government decided to subsidize the reopening of the Cyprus Anvil lead-zinc mine in the Yukon in 1986. *Financial Post*, May, 24, 1986, p. 24.

[29] EMR, *The Canadian Nonferrous Metals Industry: Lead and Zinc*, pp. 12-13; interviews.

[30] *Canadian Minerals Yearbook 1985*, pp. 34.5, 34.6; EMR, *Canada's Nonferrous Metals Industry: Lead and Zinc*, p. 37.

[31] Interviews.

Nickel

1950s to Late 1960s

For most of the 1950s and 1960s, the International Nickel Company of Canada (Inco) dominated the world market for nickel. Inco's Sudbury-area deposits were the richest nickel deposits in the world. This gave Inco control of 75 to 90 percent of non-communist world output in the first half of this century. Inco's market share declined during the 1950s and early 1960s, but even in the late 1960s it still accounted for roughly half of world production. This enabled the firm to continue to dominate the world market.[33]

During the 1950s and 1960s, Inco was able to set the world price for nickel in accordance with its long-term interests. "Inco set its price, other companies sold the amounts they wished, and Inco supplied the remainder of the market, which was the major part".[34] However, Inco did not exploit its market power to capture maximum short-term monopoly profits. It deliberately avoided raising its prices at times of peak demand and instead rationed the supply of nickel to its customers. Similarly, when demand fell below the amount Inco wanted to supply at the posted price, Inco built up huge stockpiles to avoid reducing its price or production levels.[35] Nickel demand is volatile, yet Inco's market strategy resulted in remarkably stable nickel prices during the 1950s and 1960s. Nickel price changes were infrequent and moderate during this period, and when Inco did change its posted price the direction was nearly always upwards to account for rising production costs. Consequently, nickel prices climbed fairly steadily in both current and real terms during the 1950s and 1960s.[36]

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[32] *Financial Post*, May 25, 1987, p. 28.

[33] Scherer, *Industrial Market Structure and Economic Performance*, p. 241.

[34] Urquhart, *The Canadian Nonferrous Metals Industry*, pp. 114 (quote), 5.

[35] John I. Cameron, "Nickel", in Beigie and Hero, *Natural Resources and U.S.-Canadian Relations: Volume II*, p. 59. Inco's moderate pricing behaviour has been explained by its adoption of a cost-plus rather than profit-maximizing method of price determination, and its desire to avoid high prices which would stimulate the entry of new producers, encourage consumers to switch to substitutes, and increase the likelihood of investigation by U.S. anti-trust authorities. Ibid., pp. 60, 79; Scherer, *Industrial Market Structure and Economic Performance*, p. 241; Department of Energy, Mines and Resources, "Nickel", Mineral Policy Series, Mineral Bulletin MR 157 (July 1976), p. 17.

Inco's management of the international nickel market was also impressive from the perspective of those Canadians dependent upon the nickel industry. Inco's policy of maintaining production at relatively constant levels by accumulating large inventories during slumps and rationing supplies to consumers during booms meant that employment in the nickel producing communities was much more stable than is the norm for resource-based commmunities in Canada. Not surprisingly, there was no interest in intergovernmental regulation of the nickel market in either the Canadian government or the Canadian nickel industry during this period. Inco's management of the market was satisfactory for all concerned. Similarly, there was no interest in market regulation among the foreign nickel producers which also benefited from Inco's marketing strategy.

Late 1960s to 1979

By the late 1960s, conditions in the international nickel market were changing, to the disadvantage of the Canadian nickel industry. Rapidly growing world demand in the 1950s and 1960s provided opportunities for new producers to enter the industry, especially since production from Canadian sulphide deposits could not be expanded at the same rate as world demand. Attention focused on large, widely dispersed nickel reserves contained in lateritic ores, and by the late 1960s a number of new competitors for Canada and Inco were emerging.[37] These factors combined after 1960 to produce a growth rate in output for non-communist countries other than Canada that was four times the growth rate in Canadian output,[38] and by the early 1970s Canada's share of the world market had been seriously eroded. The world nickel industry had become an oligopoly rather than a monopoly, and while Inco was still the largest producer and the price leader, it now had to pay much more attention to the responses of other major producers to its pricing policies.[39]

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[36] World Bank, *Commodity Trade and Price Trends*, 1982-83 edition, pp. 127-28.

[37] The American, Japanese and French governments aided the growth of competition by providing incentives for their nickel-producing companies at home and abroad. Cameron, "Nickel", pp. 45-46, 85-86; Urquhart, *The Canadian Nonferrous Metals Industry*, pp. 5, 153.

[38] EMR, "Nickel", p. 47.

It was during this period that the first indications of Canadian interest in intergovernmental collaboration emerged. In April 1971, the Minister of EMR, Joe Greene, met with Australian officials in Canberra to discuss natural resource issues. Australia was one of Canada's rapidly growing competitors in the international nickel market. Nickel demand was then in a cyclical downturn, and Inco was suffering because as "the supplier of last resort, virtually all of the drop in world demand for nickel ... was accounted for by reduced deliveries by Inco".[40] Japanese buyers were being particularly aggressive in pressing for lower prices. In this context Greene proposed to the Australians that they jointly establish a consultative mechanism to prevent excessive competition from developing for export sales of nickel (and certain other minerals), particularly to Japan. The Australians allegedly refused to establish such a mechanism, but did agree to continue discussions.[41] From publicly available information it appears that nothing came of this Canadian initiative. In 1976 EMR reported that "there are no known international cartels, producers associations, or study groups operating with respect to nickel".[42]

Canada's market position continued to deteriorate during the 1970s. Optimistic projections of future demand growth based on demand growth rates of the 1960s had stimulated the development of a number of lateritic nickel deposits.[43] The developing countries in which many of these new projects were located badly needed the hard currency that could be earned from nickel exports and the employment generated by nickel mining. High debt service requirements and the high energy costs of lateritic ores (especially after the oil price increases of 1973-74) also encouraged the new producers to maximize output. For these political and economic reasons, the laterite producers tended to be less flexible in response to changing market conditions than the traditional sulphide producers.[44] Interestingly, there was no significant pressure from developing producing countries to include nickel in UNCTAD's Integrated Programme for Commodities. The dominance of developed countries in nickel production made such measures politically unfeasible and meant that developed rather than developing countries would be the main beneficiaries of international regulation to support nickel prices.

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[39] Ibid., p. 17; Urquhart, *The Canadian Nonferrous Metals Industry*, p. 115; Cameron, "Nickel", p. 59.

[40] Urquhart, *The Canadian Nonferrous Metals Industry*, p. 118.

[41] Confidential cable from U.S. embassy in Canberra to the State Department, cited in Earle Gray, *The Great Uranium Cartel* (Toronto: McClelland and Stewart, 1982), pp. 100-01; interviews.

[42] EMR, "Nickel", p. 46.

[43] EMR, "The Canadian Nonferrous Minerals Industry to 1985", p. 4.

Inco's share of the non-communist world market declined from roughly 50 percent in the late 1960s to 38 percent in 1975 as a result of the development of these new deposits,[45] and Inco's ability to influence prices declined even further.[46] One analyst called the situation that had emerged by the mid-1970s "a non-cooperative oligopolistic industry structure", with different producers operating according to different decision making criteria.[47] Privately-owned producers attempted to maximize profits, which meant cutting back production in times of weak demand. At the same time, government-controlled producers in the Soviet bloc and in developing countries sought to maximize revenue and employment by maintaining high levels of production, with less regard for maintaining profits by matching production levels to market demand.

The dramatic impact that these changes were having on the Canadian nickel industry became apparent in 1976-77. Demand had been depressed since 1974, yet a number of new projects had come on stream. For the political and economic reasons noted above, most of the new projects produced at near-capacity levels during the entire 1975-78 slump.[48] Stiff competition among producers for a shrunken market and the desire of new producers to attract customers triggered the first real price war for nickel. "For the first time, ... market conditions [we]re playing a major, rather than a subordinate, role in determining the price of nickel".[49]

Inco and Falconbridge accumulated large stockpiles of nickel during this period of weak demand, and by 1977 felt that they had no choice but to reduce production. Announcements of layoffs were made in October 1977, sparking strong protests from the affected unions, the press, and politicians.[50] Prime Minister Trudeau suggested that the government might try to form an international nickel cartel to raise prices above their depressed levels, just as it had done in the case of uranium. Mr. Trudeau also raised the possibility of a compromise arrangement between producing and consuming countries.[51]

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[44] Robert D. Cairns, "A Reconsideration of Ontario Nickel Policy", *Canadian Public Policy*, VII(4) (Autumn 1981), p. 527.

[45] EMR, "Nickel", pp. 31-32.

[46] Urquhart, *The Canadian Nonferrous Metals Industry*, pp. 114-15, 118, 153, details these changes.

[47] Cairns, "A Reconsideration of Ontario Nickel Policy", pp. 527, 530.

[48] Cairns, "A Reconsideration of Ontario Nickel Policy", pp. 527, 530.

[49] Cameron, "Nickel", p. 62.

Both the bureaucracy and the nickel industry were caught off guard by Mr. Trudeau's cartel suggestion. Ottawa had been considering options for assisting the nickel industry, but no decision had been reached. Canadian officials sought to convince concerned American officials that the Prime Minister's comments were not to be taken seriously, and that Canada had no interest in a nickel cartel.[52] Inco, conscious as always of the risk of anti-trust investigation in the U.S., quickly dissociated itself from the suggestion. In a public statement, Inco stated "that it ha[d] had no discussions with anyone regarding a cartel" and that it opposed "any such concept" as a nickel cartel which, it argued, would cause the Canadian nickel industry to lose its valuable international reputation as a "reliable and competitive" supplier.[53] The nickel industry also opposed Prime Minister Trudeau's suggestion of an ICA for nickel. An ICA would bring unwelcome government intervention in international marketing, might provide U.S. anti-trust authorities with an excuse for yet another costly investigation, and would probably not be effective.[54]

While Prime Minister Trudeau's public comments came as a surprise to many, they did reflect the government's real interest in the problems of the nickel industry and the fact that Cabinet had been considering a number of options for government action to deal with these problems. These options, considered with varying degrees of seriousness, included government financing for nickel stockpiling to enable production and employment levels to be maintained (nickel mining unions were calling for such a stockpile), a nickel study group to improve market information, a producer-consumer ICA for nickel, perhaps under UNCTAD auspices, and the cartel mentioned by Trudeau.[55]

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[50] Ibid., p. 78.

[51] *Globe and Mail*, October 22, 1977, p. B2.

[52] Interviews.

[53] Inco statement quoted in *Globe and Mail*, October 25, 1977, p. B16.

[54] Interviews with industry executives and government officials. However, in the mid-1970s the nickel industry was prepared to consider an ICA to deal with the threat from seabed mining. William E. Haviland, "Commodity Price and Earnings Stabilization: Synthesis Paper", in *The Canadian Perspective on Commodities*, p. 5.

Concurrent with these Cabinet-level discussions in Canada, the Australian government was becoming interested in the idea of an international nickel study group[56] (INSG) to improve the quality and availability of information on the international nickel market. The Australians felt that a failure of information on demand trends had contributed to the over-expansion of capacity in the 1970s. This analysis was in line with evolving thinking in Ottawa (see below), so when the Australian Minister responsible for natural resources broached the idea to Canadian officials during a visit in early 1978, the Canadian government quickly gave its support to the idea.[57] The Australian government held bilateral consultations with the governments of other major producing and consuming countries during 1978 to gauge the level of support for an exploratory international meeting on nickel, the objective of which "would be to consider the establishment of a producer-consumer forum whose function would be analogous to those of the International Lead and Zinc Study Group".[58]

Canada's support for an INSG in the late 1970s, in contrast to its lack of interest in intergovernmental cooperation regarding nickel during the 1950s and 1960s, resulted from the dramatic changes in the structure of the international industry outlined above. By the mid-1970s, sluggish demand combined with the increase in the number of suppliers had forced Canadian producers to be more responsive to changes in demand and price. Employment in nickel production became much more variable than it had been when Inco dominated the market. Production cutbacks and lay-offs in the nickel-producing regions of Sudbury, Ontario and Thompson, Manitoba raised the ire of unions, community leaders, and provincial governments. All of these groups pressed Ottawa to do something to help the industry. The only comparable case of sustained domestic political pressure for mineral market stabilization was uranium, and in that case Ottawa decided to create a cartel (see chapter four).

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[55] Interviews.

[56] The proposed institution was initially called an international nickel discussion group.

[57] Interviews.

[58] A.J. Webb, Department of Energy, Mines and Resources, "Canadian non-fuel mineral trade and the international mineral scene", *Canadian Mining Journal*, 100(2) (February 1979), p. 50.

Consequently, the question of what to do about nickel became a top priority in EMR and an important issue for the Cabinet as a whole.[59]

Of the range of options considered by Cabinet, the creation of an INSG appeared to meet most closely the concerns of the Canadian government. The mining unions and some spokesmen from the affected communities and the Ontario government called on the federal and Ontario governments to purchase and stockpile nickel to maintain production during what they initially perceived as a temporary slump. The federal government refused to finance a nickel stockpile because of the large costs that would be involved, the unfairness of supporting nickel prices without taking similar action for other minerals, and the fears (shared by the producing firms) that a large stockpile overhanging the market would depress prices without much prospect of ever being sold at a profit.[60] The option of trying to create an ICA for nickel was rejected because of the opposition of the industry, the perception that the major nickel consuming countries would not support an ICA, and doubts in Ottawa about the workability and benefits of an ICA for nickel. A nickel cartel was not considered very seriously (despite the impression created by the Prime Minister's comments) because of the desire to avoid offending Canada's trading partners. The hostile reaction in the U.S. to Canadian participation in the uranium cartel (Congress held hearings on the cartel in 1976-77) provided an indication of the likely foreign response to a nickel cartel. Officials also doubted that efforts to manage the nickel market could succeed without the cooperation of the major consuming countries.[61]

An INSG appeared to hold some promise of benefits for Canada while avoiding the pitfalls of the other options. From Ottawa's perspective, support for an INSG enabled politicians to demonstrate that they were doing something to meet the concerns of the affected groups. The Ontario and Manitoba governments have been closely involved in nickel discussions in Canada and have supported the federal government's INSG initiatives, and this has prevented the issue from becoming one of serious federal-provincial conflict.[62]

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[59] However, there has been very little Cabinet-level involvement in the INSG initiative since the Cabinet decision was made in 1978.

[60] *Globe and Mail*, February 10, 1978, pp. 1-2; September 18, 1982, p. B16.

[61] Interviews.

[62] Interviews.

Canadian officials also liked the idea of an INSG because such an institution could meet the need they perceived for more extensive, up-to-date, and widely available market information. Ottawa had been caught off guard by the decline of the industry in the mid-1970s, and felt that a source of information independent of Canadian producers could contribute to the government's efforts to keep on top of conditions in this politically important industry.[63] In particular, officials felt that the participation of consuming countries in an INSG could improve knowledge about consumption trends. This would help the industry to avoid a repetition of the over-building of new capacity in response to inflated projections of demand that resulted in the over-capacity plaguing the nickel industry since the mid-1970s. The perception that an INSG could play a major role in improving information on consumption trends is one reason for the Canadian government's continuing emphasis on getting consuming countries involved in the INSG. The fact that an INSG was expected to be much more attractive to consuming countries than an ICA was therefore a major advantage for the former, in Ottawa's view.[64]

Despite the absence of regulatory powers in the INSG proposals, such an organization was expected to have a positive impact on international nickel market conditions. It was hoped that consultations among producing and consuming governments and firms, in conjunction with the improved market transparency expected to result from INSG information exchanges, would help to convince developing producing countries of the need to be more responsive to market forces. If the INSG could promote a better understanding of market dynamics among developing producing countries, they might be more willing to reduce production when markets were weak and to refrain from expanding production capacity beyond what the market could absorb. If this could be done, the disruptions in the market caused by what one official called "social nickel" might become less of a problem.[65]

Finally, the INSG proposal compared favourably with the other options considered by the government because it did not draw the same opposition from the nickel industry as was drawn to proposals for a stockpile, an ICA, or a cartel.[66]

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[63] Some officials felt that the private Canadian producers had not given them sufficient information or warning of the impending troubles.

[64] Interviews.

[65] By "social nickel", he meant nickel whose production was justified in terms of meeting broad social objectives of maximizing employment and export earnings rather than the narrower economic objective of maximizing producer prices.

1979 to Present

The international nickel market has continued to evolve in the direction of greater competition since the late 1970s. Trading of nickel metal was introduced at the LME in April 1979. "Initially the LME was ignored by the major nickel producers who continued to sell at producer prices", and trading on the LME was very light for the first couple of years. However, the LME nickel price began to have an increasing impact on "the pricing policies and strategies of the major producers ... By mid-1982 the major nickel producers gave up attempts to realize posted prices and changed their pricing strategies, adopting more competitive and flexible pricing policies". The breakdown of the producer price system has been accompanied by significantly greater price volatility.[67]

The instability of nickel prices since the late 1970s was accompanied until very recently by a steep downward trend. Nickel prices in real terms peaked in 1980 (after a sharp drop in 1978), and fell by 1983 to the level of the early 1950s. Prices were predicted to rise as the world recession ended and demand picked up, but the average LME price in 1984 was only $2.16 (U.S.) per pound and in 1985 was only $2.22 (U.S.).[68] By January 1987, prices had fallen again to $1.58 (U.S.), before rebounding to approximately $2.50 (U.S.) in August. Analysts are divided on whether the recent upturn represents a temporary reaction to short-term market tightness (demand for stainless steel has been unusually strong at a time when producer stocks were unusually low) or a fundamental return to market balance. There is concern that high prices will merely trigger a new bout of overproduction and capacity expansion.[69] Canadian producers receive 20 to 25 cents per pound more than the LME price (apparently because of the higher quality of their nickel as compared to most nickel in LME warehouses), yet prices during the

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[66] Interviews with government officials and industry executives.

[67] Walter Curlook, Executive Vice-President, Inco Ltd., "Nickel: Situation and Outlook", paper presented to the Canadian Mineral Outlook Conference (Ottawa: Mimeograph, May 17-18, 1983), pp. 4-5.

[68] EMR, *Canada's Nonferrous Metals Industry: Nickel and Copper*, p. 22; *Canadian Minerals Yearbook 1985*, p. 44.4.

[69] *Financial Post*, August 17, 1987, p. 10.

1980s have barely covered their costs. In 1984, Falconbridge's cost of production was $1.99 (U.S.) per pound, while Inco's was closer to $2.50 (U.S.) per pound. Falconbridge had a net loss in 1983 but returned to profitability in 1984. Inco lost a total of $438 million (U.S.) in 1982 and 1983 and did not end the flow of red ink until 1985, when it made a small profit. The continuing profitability of the two largest Canadian nickel producers in 1986 despite lower prices reflected further gains in cost-cutting.[70]

Severe cost-cutting by Canadian producers made them the non-communist world's lowest-cost producers by 1983. However, Canadian producers still absorbed the bulk of the reduction in production required to keep nickel prices from collapsing during the recession of the early 1980s. As a result, Canada's share of non-communist world production fell as low as 14 percent in 1982, down from around 50 percent in the late 1960s. Canada's share rebounded to 19 percent in 1983 and 23 percent in 1984, and officials believe that it has stabilized at approximately this level.[71] Canadian producers have become swing producers, absorbing a disproportionate burden of fluctuations in supply required to stabilize international nickel prices, because of the growing role of government controlled production in developing countries and in the Soviet bloc. In 1950, about 85 percent of global production capacity was privately owned and responded to weak demand by cutting production to stabilize prices. By 1984, 60 percent of global production capacity was government owned. The need for foreign exchange and employment stability has led many government owned producers to continue to produce and export nickel at planned levels regardless of international demand and prices. "Social rather than commercial criteria have become increasingly important in determining production decisions for many nickel producers around the world".[72]

Cost-cutting programs and production cuts have dramatically reduced employment in Canadian nickel-mining regions. Nickel production is concentrated in Sudbury, Ontario and Thompson, Manitoba. In Sudbury, the combined Inco and Falconbridge labour force fell from 28,000 in 1961 to only 11,000 in 1987, and further cuts are planned. The dramatic impact of these cuts on the region has been mitigated by increased federal and provincial government spending in the region. For example, the federal government moved an income tax data centre to Sudbury; the Ontario government moved a number of government departments to Sudbury and funded increased spending on health services and tourism. These efforts helped to prevent economic collapse, but did not prevent the regional population from declining from 169,000 in 1971 to 155,000 in recent years.[73] Thus, while governments in developing nickel-producing countries have directly subsidized nickel production to maintain employment and export earnings and to prevent political instability, Canadian governments have rejected large-scale direct subsidies to nickel producers and have dealt with the potential political problems by increasing social spending in the affected region.

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[70] *Globe and Mail*, March 9, 1984, p. B4; April 23, 1984, p. B1; July 31, 1984, p. B4; Peter C. Newman, "Frustrations of a world leader", *Maclean's* 99(45) (November 10, 1986), p. 44; *Canadian Minerals Yearbook 1985*, p. 44.4.

[71] *Canadian Minerals Yearbook 1985*, p. 44.10; EMR, *Canada's Nonferrous Metals Industry: Nickel and Copper*, p. 8; interviews.

[72] EMR, *Canada's Nonferrous Metals Industry: Nickel and Copper*, p. 9.

The enormous costs to Canada of nickel market instability in the late 1970s and the 1980s led the Canadian government to make a major diplomatic effort to create an international nickel study group to deal directly with the basic problems of the industry. But before trying to convince foreign governments of the desirability of an INSG, Ottawa had to persuade the Canadian industry to support the effort. Canadian nickel producers (Inco, Falconbridge, and the much smaller Sherritt Gordon) were open to the idea that "discussion and information exchanges between governments and firms [could play an important role] in obtaining better national, international, and corporate decision-making with respect to the production and trade of commodities".[74] There had even been some talk among producing firms from a number of countries about the possibility of establishing a privately-owned information-gathering company, indicating some industry interest in improving the quality of information about the nickel market.[75]

However, when officials first broached the INSG idea to the Canadian nickel producers, the latter were ambivalent. Some executives supported the idea, others were opposed to what they saw as another manifestation of growing government involvement in the private sector, while a third group, more skeptical of the ability of governments to accomplish anything of value, was indifferent. Inco was concerned that it would be forced to share its extensive information on the international industry without receiving anything in return. There was also a feeling in the industry that the effort being directed to the creation of an INSG was misplaced; nothing short of a sustained world economic recovery would stimulate demand for the investment goods that constitute the major uses for nickel, and in the meantime the best that the government could do was to help the industry to control costs and increase productivity.[76]

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[73] *Globe and Mail*, February 2, 1987, p. A4.

[74] Unattributed paper from the Canadian nickel industry, cited in W.O'D. Costello, "Synthesis Paper on Commodity Information", in *The Canadian Perspective on Commodities*, p. 9.

[75] Interviews.

It took more than two years of intensive "lobbying" by officials to convince the Canadian nickel firms to give at least passive support to the INSG proposals. During this process, officials continually stressed that an INSG would not attempt to regulate the market in any way and that the anti-trust risk would be minimal because consuming countries would be involved.[77] By 1982, Inco and Falconbridge had given their unenthusiastic support to the proposal for a nickel study group.

Since that time, many industry executives have become strong advocates of a nickel study group for basically the same reasons that Ottawa supports the idea. Industry attitudes changed as executives came to realize that the problems facing the industry are so fundamental that traditional responses (e.g., cuts in production when markets are weak) are no longer adequate to stabilize prices at remunerative levels. Government-controlled production in developing countries and the Soviet bloc is viewed as a significant threat to the Canadian industry's continued existence. Nickel executives see a study group as one mechanism for encouraging government-controlled producers to be more responsive to market forces, thereby spreading the burden of production cutbacks more widely. Improved market transparency and study group consultations could make foreign producers more cognizant of how their insensitivity to market conditions hurts themselves along with all other producers. A study group with Soviet participation could improve statistics on what is viewed as one of the most disruptive forces in the international markets. Finally, the shift in the industry's attitude may also be due to the replacement of American citizens by Canadian citizens among Inco's executives, since the former have traditionally been more concerned with threats of anti-trust prosecution in the United States.[78]

The first intergovernmental meeting to consider the creation of an INSG was held in 1979. As of November 1987 it was still not certain whether an INSG would ever come into operation. The main obstacle in the discussions has been the reluctance of consuming states to become involved in an organization which promises them no clear benefits at the same time as it appears to carry certain risks. Persistent oversupply and low prices for most of the 1980s have meant that consumers have not seen an urgent need for measures to ameliorate market problems. Furthermore, despite the rather innocuous information-sharing objectives of the proposed INSG, some consuming countries fear that it might be the first step toward greater government intervention in the market, and perhaps toward a nickel cartel. The fact that the initiators of the INSG discussions, Canada and Australia, were both involved in the uranium cartel encouraged these fears, as did Prime Minister Trudeau's comments in 1977 about a nickel cartel.

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[76] Interviews with government officials and industry spokesmen.

[77] Interviews.

[78] Interviews with industry spokesmen and government officials.

Since Canada believes that consuming countries must be involved if an INSG is to be of any value, officials have been adamant that the organization is intended solely to facilitate the exchange of information and would have no power to regulate production, trade, or prices. They argue that the exchange of information alone would enable producers and consumers to respond more appropriately to market signals, thus helping to stabilize the market to the advantage of consumers and producers. Better information on market trends would help to avoid future shortages that could result from losses in production capacity triggered by low prices and pessimistic forecasts of future demand. Canadian officials have also argued that consumer participation in a study group would help to forestall pressure for more radical alternatives such as a nickel cartel.[79]

The first intergovernmental meeting on nickel, held in 1979, involved Australia, Canada, France, Japan, the United Kingdom, the United States, and West Germany. It is interesting to note that Australia and Canada had decided to seek the support of the major industrialized countries prior to initiating broader international discussions; the attitudes of these countries, as the largest importers of nickel and the major players in the international economy, were crucial to the prospects for a nickel study group. Furthermore, the non-confrontational approach taken by the two developed producing countries contrasts sharply with the confrontational approach taken by developing producing countries in commodity negotiations in the 1970s. Canada and Australia believed that quiet, behind-the-scenes diplomacy was more likely to be effective than a formal intergovernmental negotiating conference.

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[79] Interviews.

There was no great enthusiasm for a nickel study group among the nickel importing countries participating in the 1979 discussions. In subsequent meetings held between 1980 and 1982, Canada and Australia were unable to persuade the others to commit themselves to the establishment of an INSG. Britain demonstrated its lack of interest by attending only the first meeting. The United States felt that it already had good information on the nickel market and was concerned that the establishment of a study group might lead to price fixing. As the largest importer, the position adopted by the United States was critical to the prospects for a study group. Canadian officials did not press hard for an early American commitment, however, since supportive American officials indicated that, if Canada did push for an early American decision, it would almost certainly be negative.[80]

France, Japan, West Germany, and the United States eventually agreed (in October 1982) that Canada and Australia should canvass all other countries with at least one percent of world exports or imports (about 30 in total) to determine the degree of international support for the proposal. The fact that Canada and Australia felt that they had to get the permission of the major importers before consulting other nickel trading countries again demonstrates the importance these producers attach to adopting a cooperative rather than a confrontational approach to importing countries. The reaction of the larger group of nickel trading countries to the proposal for a nickel study group was mixed, with no outright rejections but also little enthusiastic endorsement.

On the basis of this informal survey, meetings of more than 30 countries accounting for the bulk of world nickel trade were held in October 1984 and in April 1985. Canada and Australia hosted the meetings and argued long and hard to persuade the others of the advantages of a nickel study group. Sufficient support for the concept was expressed to justify calling on the United Nations to convene a Conference on Nickel in October-November 1985. This meeting was held under UNCTAD auspices. Canada was happy to have UNCTAD host the meeting, as it provided costly facilities that Canada and Australia had had to provide for previous meetings. There was no concern that the use of this forum would lead to pressure for a formal commodity agreement with market intervention functions such as UNCTAD had promoted in the

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[80] Interviews.

1970s; the UNCTAD Secretariat had itself become less interventionist and there was no pressure from developing nickel producing countries for an ICA.

The October-November 1985 UN Conference on Nickel was attended by about 30 states representing over 90 percent of world nickel production and consumption.[81] With Canada taking the lead, agreement was reached on the Terms of Reference for an INSG modelled closely on the International Lead and Zinc Study Group. The agreed objective was "to ensure enhanced international cooperation on issues concerning Nickel, in particular by improving the information available on the international nickel economy and by providing a forum for intergovernmental consultations on Nickel". To allay concerns that the INSG might intervene in the market, the terms of reference stated explicitly that "The Group is not a trading organization and shall not have the power to enter into any trading contract for nickel ...". These terms of reference were formally adopted at a second session of the negotiating conference in April 1986.

The INSG was to come into operation after 15 states accounting for more than 50 percent of world trade had informed the United Nations Secretary-General of their intention to join. As of November 1987, fewer than ten countries (representing less than 50 percent of world nickel trade) had announced their intention to join the agreement. Canadian officials have been trying hard to persuade others to join. The United States decided early in the process not to join, citing a lack of interest on the part of its nickel-consuming steel industry and doubts about the need for a study group. This was a major disappointment to Canadian officials; in 1983, one had expressed the view that Canada did not ask the United States for much and therefore ought to be able to persuade it to join as a favour to Canada. However, the United States did agree to supply the INSG with statistics on American consumption. In the end, Canada did not try to secure American membership at all costs, since the U.S. would probably have demanded a degree of reciprocity in information exchange beyond what was acceptable to the Soviet Union, another country that Canada wanted to have in the study group. Canadian officials hope that the United States will be more willing to join a nickel study group if the copper study group being pushed by the U.S. is created and is perceived as a success.

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[81] *Mining Journal*, November 8, 1985, p. 356.

Britain also decided not to join the nickel study group. It feared being caught in another crisis like that in tin, even though the terms of reference for the INSG renounced market intervention and other countries were willing to accept a British amendment to the terms of reference which would have limited the financial obligations of member governments to meeting their respective budget contributions. Britain also resented the unwillingness of other governments (including Canada) to match its financial contribution to the resolution of the tin crisis.

The Soviet Union, France, West Germany, the Netherlands, Sweden, Norway, and Finland have announced their intention to join the INSG.[82] Australia, once a leading proponent of a nickel study group, is now having second thoughts, although Canadian officials are hopeful that it will soon join. Japan had initially expressed a willingness to join the group, but is now reconsidering its position in light of the British decision not to join and Australia's ambivalence. Some developing countries that are interested in joining have been deterred by the cost of their contributions to the INSG budget.

Canadian diplomats are making continuing efforts to persuade more countries to join the INSG. They hope that enough countries will join to permit the agreement to come into provisional operation some time in 1987. "Enough" is defined as a representative cross-section of producing and consuming countries and of developed and developing countries, even if the total number is less than 15 and/or they account in aggregate for less than 50 percent of world nickel trade.[83]

Conclusions

The cases of lead and zinc and of nickel demonstrate clearly that study groups are the instrument preferred by developed producing countries to deal with international mineral market problems. Informal consultations and information exchanges among producing and consuming countries are seen as means for helping the market become more stable without the distortions and rigidities introduced by formal regulatory schemes. The ILZSG has the support of developed producing and consuming countries, and the INSG proposal was initiated by Canada and Australia, two of the most important developed mineral exporting countries. Study groups are therefore more likely than ICAs for minerals exported largely by developed countries, although the case of lead and zinc suggests that study groups are also less necessary in markets which are dominated by profit-motivated private producers based in developed countries, since the tendency towards tacit oligopolistic market management under such conditions makes international markets more stable in the first place.

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[82] Some have made the membership conditional on enough other countries joining to bring the INSG into operation, and on the acceptance of the amendment proposed by Britain (see above).

[83] Interviews, for this and preceding paragraphs.

The long and successful history of the ILZSG has inspired Canada and other developed producing countries to propose similar institutions for other minerals. Canada's INSG initiative and the American copper study group proposal were both modeled on the ILZSG, and support in Ottawa for study groups for other minerals (including iron ore, tungsten, and tin) can also be traced in part to favourable experience with the ILZSG.

The ILZSG was formed at a time when the international political environment was more propitious for international cooperation and the creation of new intergovernmental institutions. The difficulties that Canada has experienced in trying to generate support for a nickel study group are in part attributable to disillusionment among the largest industrialized countries with commodity agreements and broadly based institutions such as the United Nations. There also appears to be a greater wariness towards attempts to influence market conditions, especially compared to the apparent willingness to cooperate to improve lead and zinc market conditions in the 1960s. Canada's difficulties with the relatively innocuous INSG initiative reveal how little Canada can do on its own to ameliorate international mineral market problems.

4. POTASH AND URANIUM

Introduction

Canada has traditionally opposed mineral cartels intended to fix prices and/or share markets. There have been only two exceptions to this policy in the post-1945 period. Potash provides a unique case of provincial government involvement in a cartel-like international arrangement to restrict output and support prices. The only formal international mineral cartel in which the Canadian federal government has participated was for uranium. In both cases, extreme threats to the viability of Canadian industries triggered non-traditional policy responses that are unlikely to be repeated for other minerals.

Potash is the source of potassium, one of the three critical fertilizers in modern commercial agriculture (the others are nitrogen and phosphates). Massive high-grade potash deposits were discovered in Saskatchewan in the 1940s, and by 1969 (when the arrangement in question was established) Canada had become the world's largest producer and exporter. The Soviet Union overtook Canada as the world's largest producer in 1970, but Canada has remained the world's largest exporter because approximately 95 percent of Canadian production is exported while the bulk of Soviet production is consumed domestically. Two potash mines opened in New Brunswick in the 1980s, and production in Saskatchewan and New Brunswick together accounted for 26.6 percent of global production in 1984. The other major producers are the Soviet Union (with 32.3 percent of world production in 1984), East Germany (11.9 percent), West Germany (9.1 percent), France (6.0 percent), and the United States (5.4 percent, down sharply from earlier decades).[1] While a number of developing countries produce and export small quantities of potash, production of this mineral is dominated by developed countries.

The United States provides by far the largest market for Canadian potash, accounting for 57.8 percent of Canadian exports in 1984. Other important markets include the People's Republic of China (5.9 percent), India (5.7 percent), Japan (5.4 percent), Brazil (3.8 percent), and South

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[1] *Canadian Minerals Yearbook 1985*, p. 48.14.

Korea (3.4 percent).[2] As is apparent from this list, developing countries account for the bulk of Canada's exports to offshore markets.

Early potash mine development in Saskatchewan was dominated by corporations which also mined potash in New Mexico and which saw Saskatchewan as a lower-cost alternative source of supply for their American customers. Since that time, Canadian-owned mining companies and the Saskatchewan government, through the provincially-owned Potash Corporation of Saskatchewan, have become more involved in the industry.

Potash has traditionally been viewed in Saskatchewan as a key element in provincial economic development and diversification programs.[3] Consequently, there has been a high degree of provincial government intervention in the industry (even prior to the creation of the Potash Corporation of Saskatchewan in the mid-1970s), and this has led to serious conflicts with the federal government and with the private potash producing industry. In the following narrative, we will focus on the Saskatchewan government's prorationing scheme of 1969-74 and subsequent federal and provincial initiatives to help stabilize international markets. We will not deal in any detail with the controversies surrounding provincial government taxation policies or the provincial buy-out of a number of private potash producers in the mid-1970s.[4]

Uranium is unique among the commodities covered in this study, and not only because of Ottawa's participation in the uranium cartel. Uranium has great strategic importance, and this has had a major impact on Canadian uranium trade policy. In the 1940s and 1950s, Canadian uranium helped to fuel the American and British nuclear weapons programs. Since the 1960s Canada has been more concerned to ensure that none of its exports are used in the production of nuclear weapons. Uranium is also strategically important as the fuel for nuclear power programs of many advanced industrialized countries.

Canada is now the world's largest producer of uranium, and for much of the period covered by this study it was second only to the United States. Canada has been the world's largest exporter of uranium throughout the period, since the bulk of American uranium production has always been consumed domestically. Canada has therefore played a much larger role in international uranium affairs than it has in most international commodity negotiations.

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[2] *Canadian Minerals Yearbook 1985*, p. 48.10.

[3] John Richards and Larry Pratt, *Prairie Capitalism: Power and Influence in the New West*. Jeanne Kirk Laux and Maureen Appel Molot, "Potash", in Beigie and Hero, eds., *Natural Resources in U.S.-Canadian Relations, volume II*, p. 170.

[4] These episodes are covered admirably in Richards and Pratt, *Prairie Capitalism*, and Laux and Molot, "Potash".

Uranium is also distinguished from many other commodities covered in this study by the fact that, until very recently, developing countries have played a negligible role. Very little of the world's uranium is produced in developing countries; Niger and Gabon are the only significant LDC producers, and their uranium mining and export operations have been largely controlled by France, their former colonial ruler. Uranium trade is therefore almost entirely an intra-OECD issue.

Potash

1940s to 1974

Large, high-grade potash deposits were discovered in Saskatchewan in the 1940s. The Cooperative Commonwealth Federation (CCF) government initially wanted to establish a Crown corporation to develop the province's potash resources, but abandonned the plan due to strong opposition from Ottawa.[5] The CCF government then drew up a framework for the development of potash deposits by private industry. Included in this framework was a provision that, after the first five years of production, price levels were to be subject to negotiation between private producers and the government "'to prevent monopoly practice insofar as Saskatchewan potash is concerned'".[6] No private mining companies were interested in developing Saskatchewan's potash under the framework as initially drawn up, so during the 1950s the provisions of the framework were progressively made more attractive to private firms. In the late 1950s, private mining companies began to develop potash mines in Saskatchewan.

Five of the first six companies to become involved in potash production in Saskatchewan were foreign potash producers seeking to develop an alternative source of supply. Four of these were American companies that mined potash in New Mexico, where costs of production were significantly higher. The costs of developing Saskatchewan deposits were especially low because the Liberal provincial government of Ross Thatcher had offered attractive tax and royalty terms to companies which promised to develop deposits immediately. The early 1960s seemed to be a good time to open new mines. Demand was projected to grow rapidly in the United States and abroad. Agriculturalists were becoming more aware of the contribution that potassium could make to higher farm yields, and the "green revolution" in Third World agriculture being promoted by international development agencies depended on increased use of potassium and other chemical fertilizers.[7]

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[5] Laux and Molot, "Potash", pp. 171-72.

[6] Cited in Richards and Pratt, *Prairie Capitalism*, p. 189.

Continuous potash production in Saskatchewan began in 1962 with the opening of the International Minerals and Chemical (IMC) Company's first Canadian mine. Between 1962 and 1970, Saskatchewan production expanded at an average annual rate of more than 25 percent. Favourable provincial tax and royalty treatment, strong demand (American potash demand grew at an annual rate of approximately 10 percent from 1962 to 1967), optimistic projections of future demand growth, rising prices (up 20 percent between 1960 and 1965), and the extremely high profits being made by existing producers all fed the expansion of Saskatchewan production.[8]

At first, new Saskatchewan production was incorporated into the North American potash industry without disrupting the oligopolistic structure that had permitted producers to make abnormally high profits. During the 1950s and early 1960s, the North American potash industry was characterized by a small number of producers and a very large number of buyers. American producers recognized their oligopolistic interdependence and established a stable, non-competitive producer pricing system. High prices and profit margins were supported by the high transportation costs facing overseas producers. Significant barriers to entry into the industry had the same effect; the capital requirements for competitive mines are very high, potash mining requires advanced technological capabilities, and most of the attractive deposits were controlled by existing producers.

The global industry was also oligopolistic. The number of producing countries was small and production in most was centrally controlled.

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[7] Richards and Pratt, *Prairie Capitalism*, pp. 189-94.

[8] W.E. Koepke, *Structure, Behaviour and Performance of the World Potash Industry*, Mineral Bulletin MR 139 (Ottawa: Department of Energy, Mines and Resources, 1973), pp. 13, 24; Richards and Pratt, *Prairie Capitalism*, pp. 193-95.

The buying industry outside North America was quite concentrated, with most major consuming countries coordinating potash imports through one central agency. This concentration tended to reduce the bargaining power of producers, and the prices paid by importing countries such as Japan were often lower than the prices paid by domestic consumers in producing countries such as the United States, West Germany, and France. Saskatchewan producers did not suffer from lower overseas prices during the 1960s, since their sales were concentrated in the U.S. market.[9]

Until around 1965, "the ability to collude was virtually complete" in the North American potash industry. "The evidence suggests that prior to 1967 price-cost margins ... ranged from significant to enormous".[10] However, the rapid expansion of Saskatchewan production capacity in the early and mid-1960s prevented prices from rising above their 1965 peak despite strong growth in consumption through 1967. After 1967, consumption grew more slowly as world grain surpluses mushroomed and United States foreign aid purchases of potash (to fuel the green revolution) declined. Structural changes in the North American industry reduced the price-making power of producers; the number of producers increased and the buying side of the market became more concentrated. North American producers were forced to reduce their listed prices and to offer discounts in the hopes of holding onto market shares. Potash prices fell to their lowest level ever, from a high of $37.53 per ton K2O equivalent in 1965 to only $19.87 per ton in 1969.[11]

The brunt of reductions in North American production was borne by high-cost New Mexico mines. Transnational mining firms cut production in their New Mexico operations to make room for their new lower-cost mines in Saskatchewan. Carlsbad, New Mexico, the centre of potash production in the United States, was struck by a severe recession which threatened to become even worse if the transfer of potash production to Saskatchewan continued. Consequently, in 1967 an alliance of New Mexico interests formed to press for limits on American imports of potash. The protectionist alliance included potash producers which had not invested in Saskatchewan mines, the miners' union, local business interests, the governor of New Mexico, and Congressional representatives from the region. They were opposed by potash producers which had invested in Saskatchewan mines, farm organizations whose members had benefited from low potash prices, and political representatives from farm states. The protectionist alliance initiated an anti-dumping action aimed at Canada, West Germany, and France in the summer of 1967, and between 1967 and 1969 introduced into Congress three bills to impose tariffs or quotas on foreign potash.[12]

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[9] Koepke, *Structure, Behaviour and Performance of the World Potash Industry*, pp. vii, 4, 6, 9, 21-22, 25-30, 36-37.

[10] Ibid., pp. 37, 46.

[11] Ibid., pp. 25, 37-38; Richards and Pratt, *Prairie Capitalism*, p. 203.

The Saskatchewan government began to consider measures to help the potash industry cope with declining prices and the threat of U.S. protectionism. In 1968 it appointed a committee to study world supply and demand for potash and the prospects for the Saskatchewan industry. This was the first such study undertaken by the Saskatchewan government; until 1967, provincial leaders had encouraged private industry to develop Saskatchewan's potash deposits as rapidly as possible with little serious consideration given to the question of whether markets in the U.S. and overseas could accommodate all of the new production.[13] The study concluded that international overcapacity would persist beyond 1975, but did not favour taking any action that might interfere with the transfer of North American production from high-cost New Mexico mines to low-cost Saskatchewan mines. Also in 1968, Liberal premier Ross Thatcher began to consider the introduction of a "prorationing program" to support prices by coordinated production cuts at all Saskatchewan mines. The producers initially rejected the idea, as they still hoped that the burden of production cuts would fall on New Mexico. The study commissioned by the provincial government in 1968 even concluded that most of the companies producing potash in Saskatchewan "'are unyielding proponents of the private enterprise system and consider prorationing a negation of that system'".[14]

As the situation worsened in 1969, most producers reversed their position on government intervention. In August 1969, the U.S. Treasury Department found that potash from Canada, West Germany, and France was being dumped in the American market.[15] The finding renewed interest in Saskatchewan in a prorationing scheme to forestall U.S. protectionism. Private producers were reluctant to overtly support prorationing out of the fear of violating U.S. anti-trust laws (recall that most of the Saskatchewan potash producers were American companies also operating potash mines in New Mexico). Consequently, "the corporate role remains shrouded in secrecy. Nonetheless it is certain that Saskatchewan producers did privately approach the provincial government to suggest that the latter intervene to regulate production and prices, and two Saskatchewan producers (IMC and Duval) prepared draft plans".[16]

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[12] Richards and Pratt, *Prairie Capitalism*, pp. 205-06; Koepke, *Structure, Behaviour and Performance of the World Potash Industry*, pp. 32-33.

[13] Richards and Pratt, *Prairie Capitalism*, pp. 187-88, 195, 203; Laux and Molot, "Potash", p. 161.

[14] Cited in Richards and Pratt, *Prairie Capitalism*, p. 205.

[15] While it was clear that potash from Germany and France was being sold in the U.S. at prices far below those in these producers' domestic markets, the evidence that Saskatchewan potash was being sold at lower prices in the

Potash producers, first in the U.S. and later in Canada, had turned to governments to prevent a competitive outcome to the recession-induced restructuring facing the industry.[17] Potash therefore provides the clearest case in this study of private primary commodity producers turning to governments for market support when tacit oligopolistic market management breaks down.

The potash prorationing scheme was worked out in a series of meetings in the fall of 1969 involving Saskatchewan Premier Ross Thatcher, senior Saskatchewan bureaucrats, New Mexico Governor Cargo, and executives of Saskatchewan and New Mexico potash producers. Interestingly, Canadian federal government officials did not participate in these meetings. Federal officials did visit Regina in fall 1969 to discuss potash problems with Saskatchewan officials, but the latter were disappointed with the lack of federal proposals for concrete action to help the industry. Federal officials also warned Saskatchewan that prorationing would infringe upon federal jurisdiction over interprovincial and international trade and commerce.[18]

The Saskatchewan prorationing initiative had put Ottawa in a difficult position. There was some sympathy in Ottawa for the objectives of

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U.S. than in Canada was mixed at best, and it appeared that pressure from New Mexico politicians was more important than economic evidence in accounting for the finding. Richards and Pratt *Prairie Capitalism*, pp. 206-07; Koepke, *Structure, Behaviour, and Performance of the World Potash Industry*, p. 33.

[16] Richards and Pratt, *Prairie Capitalism*, p. 207. These authors quote the Saskatchewan Minister of Mineral Resources, who said in a 1970 speech that "the initial approaches for government measures were made by the producers themselves"; p. 214.

[17] Koepke, *Structure, Behaviour, and Performance of the World Potash Industry*, p. vii.

[18] Richards and Pratt, *Prairie Capitalism*, p. 207.

supporting the potash industry and forestalling U.S. protectionism, but federal officials did have some concerns about the means of support that Saskatchewan was pursuing. Potash prorationing might set an undesirable precedent for other minerals; if Ottawa supported Saskatchewan's demands for intervention, it might soon find itself facing a flood of demands from other mineral-producing provinces for federal intervention in other mineral markets. Intervention along the lines proposed by Saskatchewan therefore conflicted with Ottawa's long-standing belief that the long-run interests of the Canadian mineral industry as a whole were best served by competitive international mineral markets.[19]

However, it was concern with the challenge to the federal government's legal jurisdiction, rather than concern with market intervention *per se*, which dominated federal responses to Saskatchewan's initiative.[20] This was to be expected, given the implications of the precedent for the federal government's ability to implement programs in all areas of its jurisdiction. Saskatchewan Premier Thatcher was sufficiently concerned about the issues of constitutionality to prompt him to fly to Ottawa to consult with Prime Minister Trudeau. Despite the jurisdictional concern, Ottawa did nothing to block the plan, although it later joined a legal challenge to the constitutionality of prorationing brought by a disgruntled Saskatchewan producer. It was speculated that Ottawa's restraint in 1969 was due to concern about "damaging the electoral prospects of both the federal and provincial Liberals".[21]

Premier Ross Thatcher of Saskatchewan and Governor Cargo of New Mexico announced the imposition of prorationing at a joint press conference in Regina in October 1969. Saskatchewan's prorationing regulations imposed a floor price of $33.75 per ton (approximately 70 percent higher than the then-current market price) and allocated production quotas among producers. Quotas were based on plant capacity, an inventory allowance, past sales performance, and the requirements of affiliated consumers. Most producers were allocated quotas equivalent to approximately 50 percent of their production capacity. The New Mexico state government did not have jurisdiction to regulate production, but Governor Cargo had secured assurances from New Mexico producers that they would not expand production. The latter also adhered to the minimum price announced by Thatcher, but apparently had not formally agreed to do so because of anti-trust concerns. The Saskatchewan-New Mexico agreements on floor prices and market shares gave the prorationing scheme the main features of an international cartel, although only the Saskatchewan producers were legally bound to adhere to the agreements. Governor Cargo also undertook to work against the imposition of tariffs or quotas on potash imports from Canada, and even though the U.S. Tariff Commission found in November 1969 that dumped Canadian potash had injured the American industry, no trade barriers were erected.[22]

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[19] Interview.

[20] Interview.

[21] Richards and Pratt, *Prairie Capitalism*, p. 208.

Early in 1970, Premier Thatcher travelled to Europe and Asia and met with representatives of local potash industries in an attempt to persuade overseas producers to join the effort to support prices by limiting production. He had little success. The Europeans raised prices by only $3-4 per ton (while Saskatchewan had raised its prices by approximately $14 per ton) and most foreign producers actually increased their output in 1970-71.[23]

The Saskatchewan prorationing scheme was in operation from 1969 to 1974. North American prices quickly rose to the level specified in the prorationing regulations and actually exceeded that level in 1971. The main beneficiaries of the scheme were the transnational mining companies with potash operations in both Saskatchewan and New Mexico, as prices were supported at a level high enough to maintain profits at New Mexico mines that were now assured a large share of the market. These companies had to cut production in Saskatchewan in order to maintain the profitability of their New Mexico mines, but this was viewed as a better alternative than either a competitive free-for-all or a protectionist solution imposed by Washington. The transnational potash firms therefore endorsed the provincial government's action. In contrast, three firms that had operations only in Saskatchewan criticized the prorationing scheme. They resented the fact that New Mexico producers would be able to operate at full capacity (New Mexico producers actually operated at about 80 percent of capacity while prorationing was in effect) while Saskatchewan producers were limited to approximately 50 percent of capacity. Operating at 50 percent capacity raised costs substantially because of the large fixed capital investment in the Saskatchewan mines, and meant that profits were low even though prices were high.[24]

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[22] Richards and Pratt, *Prairie Capitalism*, p. 208; Koepke, *The Structure, Behaviour and Performance of the World Potash Industry*, p. 40.

[23] Koepke, *The Structure, Behaviour and Performance of the World Potash Industry*, p. 40.

The outcome for the Province of Saskatchewan and for the provincial government was mixed. Saskatchewan was forced to absorb almost the entire burden of production cutbacks necessitated by excess global capacity in the early 1970s.[25] The provincial government had viewed prorationing as one way to maintain some production (and some royalty income) even though production would be at levels well below capacity.[26] However, the imposition of across-the-board cutbacks forced mines to operate with much higher costs and therefore reduced the economic rent that could be taxed by the government. Taxable returns would have been higher had some mines been permitted to run at full capacity while others were closed.[27]

The New Democratic Party (NDP) official opposition had opposed the prorationing scheme when introduced in 1969, and its 1971 party program included a promise to "'End the present government collaboration in a potash cartel that restricts Saskatchewan output and jobs'".[28] The NDP won the 1971 election but decided not to end prorationing. The majority of Saskatchewan producers pressured the new government of Alan Blakeney to retain prorationing and, along with provincial bureaucrats, persuaded NDP leaders that market conditions were still too weak to support a return to competition.[29] The NDP did amend the prorationing regulations in 1972 to impose a uniform production quota equal to 40 percent of capacity on all producers. This move hit one producer, Central Canada Potash, especially hard because it had been producing at about 70 percent of capacity to meet supply contracts with affiliated fertilizer companies. Central Canada Potash could not meet its contract commitments at the lower production level and was forced to buy potash from other Saskatchewan producers to avoid default. The firm therefore initiated a suit against the prorationing scheme, arguing that it was unconstitutional on the grounds that only the federal government had jurisdiction to regulate production to influence international trade.[30]

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[24] Ibid., p. 40; Richards and Pratt, *Prairie Capitalism*, p. 209; Laux and Molot, "Potash", p. 172.

[25] Koepke, *The Structure, Behaviour and Performance of the World Potash Industry*, p. 40.

[26] Laux and Molot, "Potash", p. 172.

[27] Richards and Pratt, *Prairie Capitalism*, pp. 209-10. This would have been the competitive outcome if low prices and U.S. protectionism had been permitted to force high-cost Saskatchewan producers out of buiness

[28] Cited in Richards and Pratt, *Prairie Capitalism*, p. 253.

[29] Ibid., p. 296; Laux and Molot, "Potash", pp. 172-73.

As market conditions improved during the international commodity boom of 1972-74 (very high grain prices stimulated demand for fertilizers including potash), the NDP government introduced new taxes and royalties "to ensure that Saskatchewan's residents reaped greater returns from the exploitation of the province's resources".[31] Private producers were incensed and believed that the new taxes violated provincial government commitments made in the 1950s and 1960s not to amend the potash royalty structure before 1981.[32] As a result, while most producers had supported the prorationing program against Central Canada Potash's constitutional challenge in 1972, by 1975 most had switched positions and backed a joint industry challenge to a prorationing fee introduced in 1974 as one of the provincial government's new tax measures.[33]

The Saskatchewan government considered other initiatives to increase the benefits to the province from potash production during the 1972-74 resource boom. Discussions were held with the federal government regarding the possibility of establishing a joint federal-provincial marketing board for potash. However, these discussions ended when Ottawa joined Central Canada Potash's legal challenge to the constitutionality of prorationing.[34] In 1972 Premier Blakeney's government required all Saskatchewan producers to join Canpotex, a private agency charged with responsibility for sales in markets outside North America. Canpotex established common prices for all producers for overseas sales and sales to Ottawa's foreign aid program; the Saskatchewan government hoped that reducing the number of sellers would increase their bargaining power and therefore improve the returns to Saskatchewan.[35]

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[30] Richards and Pratt, *Prairie Capitalism*, p. 297. The case eventually wound up in the Supreme Court of Canada, which decided in October 1978 (long after the prorationing program had been terminated) in favour of CCP and the federal government.

[31] Laux and Molot, "Potash", p. 173.

[32] Richards and Pratt, *Prairie Capitalism*, p. 260.

[33] Richards and Pratt, *Prairie Capitalism*, p. 265.

[34] Laux and Molot, "Potash", p. 173.

[35] Laux and Molot, "Potash", pp. 166, 184.

1974 to 1980

International demand for potash grew strongly after 1972 in response to strong international grain markets. The prorationing scheme was terminated in 1974 in the context of strong demand and rising prices. High potash prices encouraged existing producers to expand their capacity and stimulated the development of new potash mines in a number of countries. Development was begun on two mines in New Brunswick, where deposits were not as rich as in Saskatchewan but where the proximity to ocean ports meant low transportation costs to overseas markets.[36] Analysts in the late 1970s projected a bright future for the Saskatchewan potash industry.[37]

Under these conditions, it is not surprising that no interest was expressed in Canada in intergovernmental measures to support potash prices. The industry structure was still oligopolistic, in part because of Saskatchewan government policies. Since 1972, all exports from Saskatchewan to overseas markets had been concentrated in Canpotex, the overseas marketing organization that the NDP government had forced all producers to join. Between 1976 and 1978, the Saskatchewan government purchased mines representing 40 percent of the province's potash production capacity and established the Potash Corporation of Saskatchewan as a Crown corporation. This move reduced the number of independent companies mining potash in the province from nine to six. Successive Saskatchewan governments have "run the company as a typical oligopolist, playing by the ground rules of contemporary corporate capitalism".[38]

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[36] George S. Barry, Department of Energy, Mines and Resources Canada, "Potash - Mineral Outlook 1983" (Mimeograph: Paper presented to the Canadian Mineral Outlook Conference, Ottawa, May 17-18, 1983), p. 2; Douglas Karvonen, Potash Corporation of Saskatchewan, "The World Potash Industry: Changes in Supply and Demand", in Wojciechowski, ed., *Structural Changes in the World Mineral Industry*, pp. 71, 74; Laux and Molot, "Potash", p. 155.

[37] Laux and Molot, "Potash", pp. 186-87, 154.

[38] Laux and Molot, "Potash", p. 187 (quote), 162-66, 184. Two producers, PCA and Kalium Chemicals, withdrew from Canpotex in 1975, but all other producers (including the PCS, which joined when it purchased its first mine in 1976) remained members.

Industry-government relations in the mid to late 1970s were dominated by conflicts over the distribution of rents from potash production. High prices and the oligopolistic structure of the industry meant that the stakes were high and the conflicts intense. The Saskatchewan government imposed new taxes on private potash mining companies and, between 1976 and 1978, took over 40 percent of the province's production capacity in order to increase the share of the potash profits accruing to the Saskatchewan public and government. These actions, as well as court battles hanging over from the prorationing period, also led to serious federal-provincial conflicts over the rights to control production and to extract revenues from potash production. In an October 1978 Supreme Court of Canada decision, the federal government won the legal battle over jurisdiction to regulate international trade in potash, but there was no clear winner of the political battles and it appeared that any future regulatory efforts would require the cooperation of both levels of government.[39]

The Saskatchewan government's prorationing scheme and the creation of the PCS did raise the ire of the American government. In 1976, the Antitrust Division of the U.S. Department of Justice laid antitrust charges against five U.S. fertilizer companies (and named 150 unindicted co-conspirators including ex-Premier Thatcher and numerous Saskatchewan Cabinet Ministers and officials) for their participation in the potash prorationing scheme. This belated action was reportedly triggered by the Ford Administration's desire to win the farm vote in the 1976 Presidential election - the prorationing scheme had, after all, been announced publicly almost seven years earlier - and all defendants were ultimately acquitted.[40] More seriously, various branches of the U.S. government reacted sharply to the Saskatchewan government's 1975 decision to take over 40 percent of the province's potash industry. The U.S. Senate, responding to concerns expressed by the American fertilizer industry and the farm lobby, passed a motion of concern that likened Saskatchewan's proposed buyout to OPEC's efforts to control the supply and raise the price of petroleum. The U.S. Department of

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[39] Since the industry-government conflicts and the details of the federal-provincial debates are only marginally related to the issue of international efforts to stabilize potash markets (and the nature of the federal-provincial jurisdictional issue was changed by the Constitutional amendments of 1981-82), the reader is referred to Richards and Pratt, *Prairie Capitalism*, and Laux and Molot, "Potash", for further details.

[40] Richards and Pratt, *Prairie Capitalism*, pp. 266-67.

Agriculture began to study alternative sources of supply, and "successive U.S. ambassadors to Canada suggested on several occasions that the potash issue had become a subject of contention in the bilateral relationship".[41] In addition to the issue of security of supply, Washington wanted to ensure that American mining companies received adequate compensation from the Saskatchewan government. American attention to the issue subsided in the wake of generous compensation for the private companies that sold their operations to PCS and assurances that American access to Saskatchewan potash was secure. Saskatchewan's dependence on the American potash market gave it little choice but to be responsive to American concerns.[42] These episodes have heightened American sensitivity to Canadian potash policies and generated bad feelings that could hurt the Canadian industry as it tries to cope with U.S. protectionism in the 1980s.

1980s

Potash market conditions worsened quickly in the early 1980s. Demand in the United States fell dramatically as farm commodity prices collapsed and debt-ridden farmers were squeezed by high interest rates. Washington's acreage reduction programs, intended to reduce enormous surpluses of basic crops, also depressed demand for Canadian potash. Developing countries had been viewed in the 1970s as a major source of future demand growth, but the debt repayment problems facing many in the 1980s led to the curtailment of potash imports. Others turned to countertrade to finance potash imports. Countertrade has worked to the advantage of exporters such as East Germany which have extensive experience with countertrade, and to the disadvantage of exporters such as Canada which are more comfortable with non-barter trade. A serious problem of excess supply emerged, due not only to weak demand but also to the expansion of production capacity in response to high prices in the late 1970s and to the the unwillingness of government-owned producers (particularly in East Germany and the Soviet Union) to reduce production when demand is weak. Canadian producers, which are almost entirely dependent upon international markets, have absorbed a disproportionate share of production cutbacks because of the inflexibility of Soviet bloc production and because many foreign producers have protected access to large domestic markets.[43]

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[41] Laux and Molot, "Potash", p. 177 (quote), 176; Richards and Pratt, *Prairie Capitalism*, p. 271.

[42] Barry, "Potash -- Mineral Outlook 1983", pp. 3, 15, 19-20; Karvonen, "The World Potash Industry", p. B13; *Financial Potash*, May 24, 1986, p. 17.

Industry analysts and government officials do not expect the problems of the international potash market to be quickly reversed. World demand is projected to grow at a modest rate, reflecting oversupply in world food markets and the foreign debt problems of developing countries. Many producers worldwide could expand production if demand improved, and there are deposits in Michigan that could be brought into production (in direct competition with Saskatchewan in the U.S. market) if prices began to rise. Conditions of oversupply are therefore expected to persist.[44]

Weak demand and excess supply have forced prices downward. The price for Saskatchewan potash at the port of Vancouver peaked at around $110 (U.S.) per metric ton in 1979-80, before falling to $83 in 1981, $75 at the end of 1985, and $70 per ton in spring 1986. Prices in late 1985 were at their lowest level in real terms since potash production began in Saskatchewan in the early 1960s.[45] Saskatchewan producers have been forced to operate below capacity, lay off workers, and impose temporary production shutdowns throughout the 1980s. The two mines in New Brunswick that came on stream in the early 1980s have also had to operate below capacity.[46]

The most immediate threat to the Canadian potash industry comes, once again, from U.S. protectionism. While sales by Canadian potash producers in the United States market have been hurt by weak demand and low price, American potash producers have been hurt even more because their costs of production are generally higher. Canada's share of the American potash market rose from 82 percent in 1982 to 91 percent in 1986 as low prices forced American producers out of business. The American industry launched anti-dumping and countervailing duty actions against Soviet, Israeli, East German, and

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[43] Barry, "Potash - Mineral Outlook 1983", pp. 3, 15, 19-20; Karvonen, "The World Potash Industry", pp. 75-78; Interviews.

[44] Karvonen, "The World Potash Industry", pp. 78, 80; Interviews; *Globe and Mail*, December 26, 1985, p. B13; *Financial Post*, May 24, 1986, p. 17.

[45] *Canadian Minerals Yearbook 1985*, p. 48.7; Frank Kaplan, "Potash: building block for the future", *Canadian Mining Journal*, (October 1985), p. 54; *Financial Post*, May 24, 1986, p. 7.

[46] *Canadian Minerals Yearbook*, pp. 48.1-48.4.

Spanish potash exporters in the early 1980s, but did not achieve the level of protection they desired. Two of the five remaining U.S. potash mining companies launched an anti-dumping action against Canadian exporters in February 1987.[47] The other three American producers did not join the action because they also own potash mines in Canada that depend on sales in the United States. In August 1987, the U.S. Department of Commerce made a preliminary determination that Saskatchewan potash was being dumped below cost in the American market, and recommended that duties of up to 85 percent be imposed on imports from certain Canadian producers.[48] A final determination on anti-dumping duties will not be made for some months. Canadian officials are lobbying hard in Washington against the finding, arguing in part that American farmers would be hurt as badly by the duties as would Saskatchewan producers.[49] Canadian officials hope that inter-corporate links between Canadian and American potash producers and between Canadian potash mines and American fertilizer companies will help prevent the imposition of tariffs or quotas on Canadian exports to the United States.[50]

The Saskatchewan government quickly passed legislation to give it the authority to allocate production quotas among producers if deemed necessary to respond to the American protectionist threat. This legislation could be used to introduce "voluntary" export restraints that would raise Saskatchewan export prices to a level satisfactory to New Mexico producers and to United States trade authorities, and to distribute the burden of export restraints among Saskatchewan producers. There is a critical difference between the current legislation and the prorationing scheme of 1969-74. The latter in effect divided the American market between Canadian and American producers and established a floor price to which producers in both countries adhered. The prorationing agreement was implemented mainly by transnational mining companies with operations in both countries. However, most Saskatchewan potash today is produced by Canadian-owned companies (including the PCS) which have no corporate links to American potash producers. Thus, the current legislation would result in strictly unilateral action to restrict exports, unaccompanied by an international inter-corporate (and provincial-state) understanding on market shares and prices.

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[47] *Maclean's*, March 9, 1987, p. 35; Karvonen, "The World Potash Industry", p. 78; *Canadian Minerals Yearbook 1985*, p. 48.7.

[48] The exact levels varied between 9.14 percent and 85.2 percent; *Globe and Mail*, August 22, 1987, p. B1, B4.

[49] *Globe and Mail*, August 22, 1987, pp. B1, B4.

[50] Interviews.

The Saskatchewan legislation has not been implemented, but it has nevertheless had a strong impact on the market. Producers raised posted prices substantially in the wake of the passage of the legislation. This action was led by the PCS and followed by most Canadian and overseas producers. The threat of production quotas and U.S. import controls has apparently made consumers willing to accept the higher prices, even though supplies remain plentiful and inventories are large. If the higher prices hold, it will remove the basis for the anti-dumping charge and ensure that the higher prices needed to support U.S. producers are also paid to Canadian producers rather than to the United States Treasury, as would be the case if anti-dumping duties were raised.

Ottawa has accepted the Saskatchewan legislation as falling entirely within a field of provincial jurisdiction, even though it is clearly intended to have an impact on international trade. The federal government believes that it is an appropriate response to the threat of American protectionism. There has been no interest to date in intergovernmental cooperation on production as a means for dealing with U.S. protectionism (as there had been in the 1960s and early 1970s in the cases of lead and zinc and uranium); U.S. protectionism is being dealt with as a bilateral trade barrier problem requiring strictly bilateral action. There has been no initiative from Ottawa or from producing firms for a producer-consumer study group. Market transparency is not viewed as a significant problem. The number of important producing countries is small, and adequate information on market trends and production plans can be gained from government-industry fact-finding missions to other producing countries.[51]

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[51] While it is not official government policy, some officials feel that involving consumers in such consultations would simply make such meetings more difficult and less useful, given the divergence of interests between consumers and producers: interviews.

Uranium

1940s through 1960s

Uranium was first produced in Canada to supply the needs of the Allied nuclear weapons program during the Second World War. The strategic importance of uranium as the raw material for atomic weapons production led to the creation of the Atomic Energy Control Board (AECB) in 1946 with regulatory powers over all aspects of uranium production, trade, and consumption in Canada. This was significant because it gave the federal government the regulatory powers over uranium that provincial governments have over all other minerals.[52]

The Canadian uranium industry expanded rapidly in the early 1950s to supply the needs of the American and British nuclear weapons programs. The U.S. Atomic Energy Commission (AEC) stimulated Canadian production after 1953 by agreeing to pay high prices for all of the uranium that Canadian producers could supply.[53] These incentives created boom conditions in the Canadian uranium industry during the mid-1950s. Many new mines came into production and entire towns were built to service uranium mines. In 1959, when uranium production peaked, uranium was the most valuable mineral produced in Canada and Canada was the non-communist world's second largest uranium producer, accounting for 37 percent of non-communist world output. Uranium was also a leading earner of foreign exchange, ranking as Canada's fourth most valuable export in 1959 and accounting for seven percent of total Canadian exports.[54]

The uranium boom did not last for long. American government policies shrank the Canadian uranium industry as quickly as that same government's earlier policies had built it up. By 1955 the U.S. AEC realized that its incentives had been too successful, and that far more uranium than was required was being brought into production. Consequently, in 1956 the AEC stopped signing new contracts for additional Canadian uranium. This brought exploration in Canada to an abrupt halt. In 1959, the AEC announced that it would not exercise options it had previously taken out to purchase additional supplies from Canadian producers. Since AEC purchases accounted for 90 percent of Canadian output, these decisions would have virtually shut down the Canadian uranium industry by 1963 when existing contracts expired. In order to cushion the blow, the Canadian government negotiated arrangements with the American and British governments to stretch out contracted purchases until 1966 and to allow contracts to be transferred from high-cost to low-cost producers.[55]

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[52] Stevenson, "The Process of Making Mineral Resource Policy in Canada", pp. 171-72; Ted Greenwood with Alvin Streeter, Jr., "Uranium", in Beigie and Hero, eds., *Natural Resources in U.S.-Canadian Relations, volume II*, p. 345.

[53] Gray, *The Great Uranium Cartel*, p. 52; J.W. Griffith, Department of Energy, Mines and Resources, *The Uranium Industry, Its History, Technology and Prospects*, Mineral Report 12 (1967), p. 11.

[54] 90 percent of Canadian uranium exports into the early 1960s went to the United States; Griffith, EMR, *The Uranium Industry*, pp. XI, 21, 54; Gray, *The Great Uranium Cartel*, pp. 52-53.

All countries which had contracts with the AEC were affected by its purchase cutbacks, but "Canada was probably most severely hurt by the sudden shrinkage in world demand, because it was the producing country in which uranium weighed most heavily in the national economy".[56] By mid-1964, all but four mines had ceased production, and their output was a fraction of Canadian output in the late 1950s. By the mid-1960s, mine closings and corporate mergers had left only three companies producing uranium in Canada: Denison Mines, Rio Algom, and government-owned Eldorado Nuclear.[57] Employment in the industry had declined sharply, undermining the stability of the communities that had grown up to service the uranium industry. The fact that one of these communities, Elliot Lake, was located in Prime Minister Lester Pearson's riding highlighted the domestic political importance of the industry.[58]

Ottawa instituted stockpiling programs to help the industry weather what was expected to be a temporary slump. These involved expenditures of well over $100 million, and were virtually all that allowed the Canadian mines to stay in operation during this difficult period.[59] According to an EMR official, it was "social reasons, rather than economic ones", that motivated the government to undertake the stockpiling program.[60] The first stockpiling program was in effect during 1963-64. In 1965 the possibility of a major sale to France arose, but the French government would not accept the non-proliferation safeguards demanded by Ottawa unless the price of the uranium was lowered below the Canadian producers' cost of production. Ottawa was also concerned about other terms demanded by the French which would have transferred control over this important resource to France. The sale was desperately needed by the producer (Denison Mines), which lobbied hard in Ottawa to win government approval. When Prime Minister Pearson announced that the sale had not been approved, he cushioned the blow by simultaneously announcing a new stockpiling program that would "avoid any reduction in the current level of employment and production in the industry in Canada".[61]

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[55] Gray, *The Great Uranium Cartel*, pp. 58-59, 64-65; Griffith, EMR, *The Uranium Industry*, p. 13; Marian Radetzki, *Uranium: A Strategic Source of Energy*, (London: Croom Helm Ltd., 1981), pp. 43-44.

[56] Radetzki, *Uranium*, p. 44.

[57] Gray, *The Great Uranium Cartel*, p. 68; Griffith, EMR, *The Uranium Industry*, p. XI; Radetzki, *Uranium*, p. 45.

[58] Gray, *The Great Uranium Cartel*, pp. 70-71.

[59] Gray, *The Great Uranium Cartel*, pp. 77-78; Greenwood, "Uranium", pp. 346-47; Radetzki, *Uranium*, p. 45; Hugh C. McIntyre, *Uranium, Nuclear Power, and Canada-U.S. Energy Relations*, (Montreal and Washington, D.C.: Canadian-American Committee, 1978), p. 15.

The uranium market remained very depressed throughout the 1960s. The federal government and the uranium industry believed that the problem was temporary and that the soon-to-be-developed commercial nuclear power industry would provide a new source of demand. The stretch-out program, operating subsidies to government-owned Eldorado Nuclear, and various stockpiling programs were viewed as measures "to maintain a nucleus of a uranium industry" until the commercial nuclear power market developed.[62] However, American uranium producers wanted the United States commercial market to themselves, and the AEC willingly complied. Regulations passed in 1964 used the American government's worldwide monopoly of enrichment technology and services to effectively exclude foreign producers from the U.S. market. This was achieved without the imposition of formal trade barriers.[63] The Canadian government made repeated representations to the American government about this *de facto* import embargo during the 1960s and 1970s, but the embargo remained to depress the prospects for the Canadian uranium industry.[64]

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[60] O.J.C. Runnalls, Department of Energy, Mines and Resources, "The Uranium Industry in Canada", A Brief Submitted to the Cluff Lake Board of Inquiry, Regina, Saskatchewan (April 1977), p. 8.

[61] "Uranium: Conditions Applicable to Granting of Export Permits - Stockpiling Program", Statement by Prime Minister Lester B. Pearson in the House of Commons, June 3, 1965; *House of Commons Debates - Official Report*, June 3, 1965, pp. 1948-49.

[62] Interviews with Canadian government officials; Radetzki, *Uranium*, p. 44.

[63] Gray, *The Great Uranium Cartel*, pp. 80-86; Radetzki, *Uranium*, p. 44. The AEC regulations forbid the use in domestic reactors of foreign-origin uranium enriched in AEC facilities.

1970 to 1975: The Uranium Cartel

The industry's health continued to deteriorate into the early 1970s. A commercial market with nuclear power industries overseas had still not materialized, and the American market continued to be closed to foreign producers. Prices fell to extremely low levels, especially outside the United States, reflecting worldwide overcapacity and the existence of huge stockpiles hanging over the market. Prices paid for Canadian uranium were in the range of $5-6 per pound, down from the more than $10 per pound paid by the U.S. AEC in the late 1950s, and down even more in real terms.[65]

Two developments in 1971 made prospects for improvement in the uranium market look distinctly worse. These provided the final incentives for the Canadian government to explore the possibilities of intergovernmental market regulation. First, discoveries of large deposits in Australia which reportedly could be brought into production for as little as $2.00 per pound threatened Canadian producers with severe competition in international markets.[66] Second, the AEC announced that, far from removing the import embargo, it would use the American monopoly of enrichment services to help dispose of the uranium stockpile it had built up during the 1960s. All users of American enrichment services would be required to supplement the uranium they sent to the AEC for enrichment with uranium from the AEC stockpile. To add insult to injury, the AEC charged $10-12 per pound for the uranium it supplied from its stockpile, approximately double the market price.[67] It was estimated that this new AEC policy effectively reduced commercial market demand for uranium by about 20 percent for the period 1972-75.[68] In effect, the U.S. government was now competing with foreign producers in international uranium markets at the same time as it was excluding foreign producers from the United States, by far the largest commercial market for uranium.

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[64] Alastair Gillespie, Minister of Energy, Mines and Resources, "Background Paper on the Canadian Uranium Industry's Activities in International Uranium Marketing", Ottawa, September 22, 1976.

[65] Radetzki, *Uranium*, pp. 45-46; Gray, *The Great Uranium Cartel*, pp. 95-96; Griffith, EMR, *The Uranium Industry*, pp. 14, 22.

[66] Gray, *The Great Uranium Cartel*, pp. 95-96.

[67] Runnalls, "The Uranium Industry in Canada", pp. 13-14.

During 1970 and 1971, senior Canadian officials held talks with officials from a number of producing and consuming countries to see what interest there would be in intergovernmental arrangements to support uranium prices. In meetings with government and industry officials in Japan and West Germany, Canadian officials argued that consuming countries had an interest in stable and remunerative uranium prices. If prices continued to fall or remained at low levels, investment in uranium production would not be sufficient to meet the enormous increase in demand projected for later in the decade. Neither of these countries favoured intergovernmental regulation of the uranium market, although the West Germans apparently indicated some interest in cooperating "in establishing security of supply and an orderly price structure".[69] Concurrently, Canadian officials also held talks with their counterparts in Australia, France, and Britain. France controlled large uranium deposits in its former African colonies, Australia was projected to become a major exporter, and Britain was the home base for Rio Tinto Zinc, a private uranium producer with worldwide interests and close links with the British government. While not rejecting the idea, officials in these countries were not optimistic about the prospects for a successful producer-consumer arrangement.[70]

The Canadian government concluded from these meetings that a producer-consumer arrangement was not a viable option, given the lack of interest among consuming countries, so in the fall of 1971 Cabinet directed EMR to explore the possibility of a producer-only arrangement for uranium.[71] International uranium producing companies (many of which were owned by or otherwise closely tied to their home governments) had also become interested in international collaboration to deal with depressed market conditions. Governmental and corporate interest in international collaboration led to parallel meetings of government officials and industry representatives[72] in Paris in February 1972. The company meetings were called by Uranex, controlled by the French government, while the parallel intergovernmental meetings were called by Canada.[73]

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[68] McIntyre, *Uranium, Nuclear Power, and Canada-U.S. Energy Relations*, p. 15.

[69] N.M. Ediger, memo of meeting on 8 December 1971 with Mr. Austin and Mr. McNabb of EMR, quoted in L.T. Gregg to H.E. Hoffman, "Draft: Summary of Developments in International Uranium Meetings", 17 February 1972, in: United States, Hearings Before the Subcommittee on Oversight and Investigations of the Committee on Interstate and Foreign Commerce of the House of Representatives, *International Uranium Cartel*, volume I (95th Congress, First Session) (Washington, D.C.: U.S. Government Printing Office, 1977), p. 462.

[70] Interview; Gray, *The Great Uranium Cartel*, pp. 102-04; Larry R. Stewart, "Canada's role in the international uranium cartel", *International Organization*, 35(4) (Autumn 1981), p. 662.

The prospects for an effective cartel were good. First, all existing producers had suffered badly from depressed market conditions and were therefore predisposed to favour government support of the international market. At their meetings in Paris, the producing companies recognized that there was a need for intergovernmental collaboration to make intercorporate management effective.[74] Second, uranium production was highly concentrated. Canada, France, and South Africa controlled the vast majority of western world output outside the United States. Production and marketing within each of these countries was concentrated in a small number of corporate decision-making units.[75] Third, the political diversity among producers of uranium was not nearly as great as that among producers of most other minerals; all sizeable producing sites were either located in western developed countries or controlled by western countries.

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[71] Interview: Alastair Gillespie, Minister of Energy, Mines and Resources, "Statement on the Canadian Uranium Industry's Activities in International Uranium Marketing", Ottawa, September 22, 1976, p. 1.

[72] The representatives of the producers and the governments were in many cases the same people, since governments are highly involved in uranium production and trade worldwide.

[73] Gray, *The Great Uranium Cartel*, pp. 106, 119-20; Stewart, "Canada's role in the international uranium cartel", pp. 662-63.

[74] "Confidential Report of the Discussions in Paris on the Uranium Industry, 1-4 February 1972" in: United States, Hearings Before the Subcommittee on Oversight and Investigations of the Committee on Interstate and Foreign Commerce of the House of Representatives, *International Uranium Supply and Demand* (94th Congress, Second Session, November 4, 1976) (Washington, D.C.: U.S. Government Printing Office, 1977), p. 351. This recognition was no doubt facilitated by the fact that many of the companies represented at the meeting were government-owned. For example, among the Canadian companies represented at the meeting, Eldorado Nuclear and Uranium Canada Limited were Crown corporations.

[75] Radetzki, *Uranium*, pp. 17-19, 109-11.

Fourth, demand for uranium is extremely inelastic in response to changes in price. Uranium accounts for only about one twentieth of the total cost of nuclear electricity generation; most of the cost is accounted for by capital investment in nuclear power plant construction. "Since there are no substitutes for uranium in nuclear power generation, once the investment funds have been committed, uranium will be bought at any price within a very wide range".[76] Finally, the price elasticity of supply outside the colluding group was low. It takes years to bring new uranium deposits into production, and Canada, South Africa, France, and Australia (the four colluding producers) controlled a large proportion of then-known world uranium reserves. This meant that the colluding producers could raise prices without stimulating the rapid development of competing sources of supply.[77]

The uranium cartel was created after a series of meetings in spring 1972. Canadian government officials played a leading role in these meetings.[78] The quotas agreed upon after much dispute gave Canada the largest share (33.5 percent) of the market during the period 1972-77. Quotas were also agreed upon for the period 1978-80, although Canada had initially been very reluctant to make definite arrangements for the period past 1977. The domestic markets of France, South Africa, Canada, Australia (the four cartel members), and the United States were excluded from these arrangements. Minimum prices for deliveries in the period 1972-78 were established, while prices for deliveries in the period after 1978 were to be based on an escalating minimum price or on the world market price at the time of delivery. A secretariat was established in Paris to allocate sales to the various producers in accordance with the agreed quotas, and a procedure for bidding for contracts which would maintain the appearance of competition was established.[79]

Canadian participation in the uranium cartel contradicted Canada's stated policy of participating only in arrangements that involved both producing and consuming countries. It was also inconsistent with Canada's refusal to participate in CIPEC and APEF on the grounds that those organizations did not permit consuming countries to join. A number of factors combined to produce this departure from traditional Canadian policy. The problems facing the Canadian industry were much more serious than the problems faced by any other important Canadian mineral industry in the period under study. Had the downward trend in prices continued, the industry would have faced total collapse; as it was, such uranium production as remained in Canada by the early 1970s was dependent upon heavy government subsidies. The ramifications of a collapse of the uranium industry would have been serious, and not only for the private uranium-producing firms. The social and economic dislocations would have been severe, since uranium mining is the main source of employment for a number of communities in northern Ontario and Saskatchewan.[80]

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[76] Ibid., p. 112.

[77] Ibid., p. 113.

[78] See Gray, *The Great Uranium Cartel*, chapter eight, and documents contained in United States, *International Uranium Supply and Demand*, and United States, *International Uranium Cartel*, volumes I and II, for fascinating blow-by-blow accounts of these meetings.

[79] See document containing text of agreement reached at Johannesburg, May 29-June 2, 1972, in United States, *International Uranium Supply and Demand*, pp. 184-95.

The federal government had a clear interest in preventing the collapse of the industry, especially in light of an impending federal election.[81] The collapse of the international uranium market also would have jeopardized the federal government's substantial direct investment in the uranium industry through Eldorado Nuclear and government-financed stockpiling programs. Furthermore, the uranium-producing industry was central to the government's strategy for the CANDU nuclear reactor system, one of Ottawa's most intensive and expensive forays into high technology. The CANDU system is fueled by large volumes of natural uranium, while most competing systems require smaller volumes of enriched uranium. The concern in Ottawa was that if Canada lost the capacity to export natural uranium, the attractiveness of the CANDU system to overseas buyers would be diminshed.[82] Finally, higher uranium prices were viewed as essential to maintain a rate of exploration and mine development sufficient to ensure a continuing supply of uranium to meet the projected rapid growth in demand.[83]

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[80] The social impact of a collapse of the uranium industry is emphasized in all government statements justifying Canada's participation in the uranium cartel.

[81] Donald MacDonald, Minister of EMR, made a number of speeches in these communities during the period of the formation of the cartel. He emphasized "the Federal government's concern for the stability of resource communities" and noted that "the Government of Canada has taken steps for the holding of discussions at an international level regarding the state of the uranium industry and of the development of nuclear programmes". Donald A. MacDonald, public statement in Elliot Lake, Ontario, 21 April 1972, quoted in Roy D. Jackson, "Opinion Memorandum for Gulf Minerals Canada Ltd.", 8 September 1972, in United States, *International Uranium Cartel*, volume II, p. 200. One commentator has credited the defence of the uranium industry for an increase in electoral support for the Liberals in Northern Ontario; Stewart, "Canada's role in the international uranium cartel", p. 679.

The case of uranium was also exceptional in that the potential for successful market regulation was relatively high. Domestically, the federal government's jurisdictional authority over uranium was more extensive than it was over other minerals, and the problems facing the industry were serious enough to generate a domestic consensus on international action. Internationally, as detailed above, the highly concentrated and regulated structure of the uranium market was much more conducive to collaborative action than has been the case for any other mineral exported by Canada.

While the cartel's arrangements were not targeted at the United States (the American market was closed to foreign producers and was specifically excluded from the scope of the arrangement), the predictable opposition of the American government to a mineral cartel might normally have dissuaded the Canadian government from participating in such an effort. However, Canadian-American relations were at one of their periodic low points in the early 1970s, and this contributed to Ottawa's willingness to depart from Canada's traditional foreign economic policies. "Apocalyptic"[84] American government policies were seen in Canada as the basic cause of the problems of the uranium industry. Ottawa's decision to seek inter-producer collaboration to support uranium prices was triggered by the extension of the American import embargo and the AEC's decision to sell its uranium stockpile on the international market. According to Donald MacDonald, Minister of EMR in the early 1970s, "The U.S. was engaging in predatory pricing policies and other producers ... we acted to protect ourselves from these predatory American tactics".[85] In an official defence of Canada's participation in the cartel,

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[82] Interview; Stewart, "Canada's role in the international uranium cartel", p. 671.

[83] Donald A. MacDonald, statement to the Standing Committee on Natural Resources and Public Works, Ottawa, 28 March 1972, quoted in Jackson, "Opinion Memorandum", in United States, *International Uranium Cartel*, volume II, pp. 199-200.

[84] The term was used by a senior Canadian government official: interview.

[85] From a television interview on 16 June 1977, quoted in Gray, *The Great Uranium Cartel*, p. 205.

Alastair Gillespie (Minister of Energy, Mines and Resources after MacDonald) stated that "The decision was a direct response to U.S. actions that effectively closed the U.S. market for uranium to Canadian producers. ... The Canadian industry had expanded vigorously through the 1950s essentially to meet U.S. demands. New mining communities were formed and the American actions threatened the existence of these communities, the jobs of many Canadians, and the existence of the industry itself".[86]

The early 1970s were also a period of considerable Canadian-American conflict. Canadian economic nationalism was at a cyclical high and there was growing concern with American control of the Canadian economy. The climate of opinion in Ottawa was "open to new foreign policy options",[87] the most notable of which was the so-called "Third Option" announced in 1972. Canada's role in the uranium cartel was as an example of the Ottawa's willingness in the early 1970s to adopt policies designed to defend specific Canadian interests with less regard for the preferences of the United States.

Canadian policy may also have been influenced by resentment at the unwillingness of other uranium consuming countries to do anything to stabilize the market. Officials put part of the blame for depressed prices in the early 1970s on "the continuing efforts of some consuming utilities to play off one producer against another so as to reduce the price paid for uranium to an absolute minimum".[88]

On the other hand, there is good evidence that the uranium cartel had been tacitly accepted by the main consuming countries. If so, the Canadian government could have decided to participate in the cartel secure in the knowledge that its western trading partners would not retaliate. Canadian officials kept the American government informed about the early cartel meetings and the arrangements being devised. In a letter dated February 14, 1972, the Canadian embassy in Washington informed the U.S. Atomic Energy Commission that Canada had taken the initiative in calling a meeting of the governments of uranium producing countries and that producers had discussed such measures as floor prices and market allocation.[89]

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[86] "Press Release by the Honourable Alastair Gillespie". (Ottawa: Energy, Mines and Resources Canada, 14 October 1977), p. 2.

[87] Stewart, "Canada's role in the international uranium cartel", pp. 661-62.

[88] Runnalls, "The Uranium Industry in Canada", p. 12.

[89] Letter from H.C. Armstrong, Commercial Counsellor, Canadian Embassy, Washington, to Dr. A.S. Friedman, Acting Director, Division of International

Newspaper reports indicated that the American government was not upset about the existence of the cartel. A Nixon administration source told one newspaper that higher prices for uranium from the cartel members would help American producers to find sales abroad.[90] After agreement on marketing arrangements was reached in spring 1972, the Department of External Affairs sent telegrams to the missions of all of the affected countries advising them of the arrangements.[91] The West German and British were almost certainly kept informed of cartel developments through their links with, respectively, Uranerz (Gulf's partner in the Rabbit Lake development in Saskatchewan) and Rio Tinto Zinc.[92] Furthermore, trade journals and newspapers carried reports of many of the cartel meetings, and at least some nuclear power generating utilities were aware of the cartel from the start.[93] The governments of the consuming countries could hardly have remained unaware of the cartel's existence since all were deeply involved in their national nuclear industries.

Programs, U.S. Atomic Energy Commission, February 14, 1972. This letter was released by the Canadian government in 1977 as part of its defence of Canadian participation in the uranium cartel.

[90] Manchester *Guardian*, cited in Gray, *The Great Uranium Cartel*, p. 163.

[91] Interview. One can imagine that these telegrams were not very explicit about the agreement and especially about the arrangements designed to maintain the appearance of competitive bidding for contracts.

[92] Uranerz received "unofficial approval" from the West German government for its participation in the cartel meetings; O.J.C. Runnalls, "Memorandum: Meeting of Canadian Uranium Producers, May 9", (Canada, Department of Energy, Mines and Resources), in United States, *International Uranium Cartel*, volume I, p. 535. See June H. Taylor and Michael D. Yokell, *Yellowcake: The International Uranium Cartel* (New York: Pergammon Press, 1979), p. 72, on the close ties between RTZ and the British government. Another interesting indication of the Canadian government's indifference regarding consumer government knowledge of the cartel came when Uranerz and Gulf announced their intentions to get antitrust clearance from, respectively, the West German government and antitrust authorities in the U.S. Department of Justice. Canadian officials objected to both actions, but only on the grounds that they implied the extraterritorial jurisdiction of West German and American laws over corporations operating in Canada. There was no objection to informing these foreign authorities about the existence of the cartel. See, for example, R.K. Allen, "File Note: Canadian Uranium Producers' Meeting, Ottawa, April 10, 1972", in United States, *International Uranium Cartel*, volume I, p. 475.

[93] See Stewart, "Canada's role in the international uranium cartel", p. 675; Gray, *The Great Uranium Cartel*, pp. 101-02, 145, 160-63.

None of the governments of the major consuming countries protested to Canada about the cartel.[94] This was in sharp contrast to West European and Japanese outrage at Canada's uranium export embargo in 1977, which was motivated by the desire to upgrade non-proliferation safeguards on Canadian uranium exports. The export embargo threatened consumer access to Canadian supplies, while participation in the cartel merely raised prices. There was criticism of Canada's role when the cartel became public knowledge in the United States in 1976, but this came from Congress and the courts. The Carter administration and the State Department attempted to minimize the impact of these protests.[95] Overall, it appears that while consuming countries were not formally involved, the uranium cartel had at least the tacit approval of the governments of the major consuming countries.

Canada's participation in the cartel was implemented through the AECB. The creation of a uranium marketing board was rejected because a marketing board could only be created by Parliament through a lengthly and very public process, and because private uranium producers were opposed to an increase in formal government regulation of the industry. Cabinet therefore decided to use an Order-in-Council to give the AECB the power to regulate exports and set minimum export prices. The Minister of EMR would send Directives to the AECB requiring it to allocate quotas among Canadian producers and establish minimum export prices in accordance with decisions made at cartel meetings.[96] This procedure enabled Cabinet to act quickly, circumvent Parliament, and maintain the secrecy of the arrangements while removing the participating companies from the threat of prosecution under the Combines Investigation Act.[97]

The cartel was in operation from 1972 to 1975. Between 1972 and 1977, uranium prices jumped from less than six dollars per pound to more than 42 dollars per pound, an increase of 600 percent.[98] Factors other than the uranium cartel were largely responsible for this increase. Physical demand for uranium increased sharply as nuclear power plants finally began to come on stream in significant numbers. At the same time, changes in the method of contracting with the AEC for enrichment services, the revelation that Westinghouse (a manufacturer of nuclear power reactors) had contracted to sell far more uranium than it actually controlled, and fears about security of supply for energy consumers generated by the oil crisis, all seemed make it more urgent for consumers to sign contracts with uranium producers. This combination of factors sent utilities on a panic buying spree, contracting for huge volumes of uranium as quickly as they could virtually without regard to price. The buying spree coincided with a decline in the total amount of uranium available on the international market resulting from government decisions in producing countries. France, Australia, South Africa, and Canada all decided in 1974-75 to eliminate or restrict exports for reasons unrelated to the cartel (see below).[99]

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[94] Interview.

[95] Stewart, "Canada's role in the international uranium cartel", pp. 684-87

[96] Documents detailing these arrangements were published in United States, *International Uranium Supply and Demand* and *International Uranium Cartel*, and were released by EMR in 1977 as part of Ottawa's defence of Canadian participation in the cartel.

[97] Stewart, "Canada's role in the international uranium cartel", pp. 682-83.

[98] Radetzki, *Uranium*, p. 25.

Strong demand and tight supply caused market prices to surge ahead of cartel prices during 1974, and the Canadian government withdrew all quota and minimum price directives in January 1975.[100] Prices really began to climb in mid-1974 and 1975, after the cartel had ceased to function effectively. While the market developments described above provided the main impetus for the rapid increase in prices, the cartel probably did contribute to the increase in prices from 1972 to 1974. It helped to eliminate the severe competition among producers that had characterized the preceding period. By early 1974 "the trust and cohesion established among producers had greatly increased their bargaining power and permitted them to turn the emerging events in the uranium market to their own advantage".[101] The uranium cartel also led the way from fixed price contracts to world market price contracts. Under the latter, future deliveries would be made at the then-prevailing world market price rather than at a pre-determined fixed price. This enabled producers to take advantage of any increases in price over the life of the contracts, while escalating floor prices also specified in the contracts protected producers against falling prices. The cartel members were the first to adopt world market price contracts, and they were quickly followed by U.S. producers who saw the advantage of such contracts in a period of rapidly rising prices.[102]

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[99] Radetzki, *Uranium*, pp. 81-94, 125, 129; Paul L. Joskow, "Commercial Impossibility, the Uranium Market and the Westinghouse Case", *Journal of Legal Studies*, VI(1) (January 1977); Nuclear Exchange Corporation, "Significant Events in the Uranium Market 1969-1976", in United States, *International Uranium Supply and Demand*, pp. 363-74; Taylor and Yokell, *Yellowcake*, pp. 114-23.

[100] Donald S. MacDonald, Minister of Energy, Mines and Resources, letter to the President of the Atomic Energy Control Board, January 22, 1975. This letter was released by EMR in 1977 as part of Ottawa's defence of Canadian participation in the cartel.

[101] Radetzki, *Uranium*, pp. 117, 108.

The uranium producing companies established the Uranium Institute to supersede the cartel in June 1975. Discussions among the cartel members about replacing the cartel with a more formal, open association of producing companies had been held as early as November 1973.[103] A January 1974 document suggested that the principal objectives of the Institute would include the coordination of uranium production with consumption requirements,[104] implying some sort of collaboration among producers. However, the objectives of the Uranium Institute as actually constituted made no mention of coordination of supply with demand, stressing instead the objective of improving market information. Initially, only producing companies could be full members of the Institute, although consuming companies were invited to participate as associate members.[105] Even before the revelations in 1976 about the uranium cartel, there were widespread suspicions that the Institute was a price-fixing organization. In order to combat these suspicions, the Institute's membership policy was changed in December 1975 to permit uranium consuming companies to become full members, and the Institute allowed U.S. Department of Justice attorneys to interview its officers in order to clear the way for American firms to join without fear of violating U.S. anti-trust laws. It appears that the Uranium Institute is not involved in formal cartel-like activities, although there are still suspicions that "uranium producers might still find the back rooms of the Uranium Institute a convenient forum for price-fixing".[106]

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[102] Taylor and Yokell, *Yellowcake*, pp. 89, 157; Radetzki, *Uranium*, pp. 27-28.

[103] "Draft Minutes of the 9th Operating Committee Held in Las Palmas on November 23, 1973", 5 December 1973, in: United States, *International Uranium Supply and Demand*, p. 254.

[104] "Draft No. 3: The Uranium Institute: Constitution", January 30, 1974, in: United States, *International Uranium Supply and Demand*, p. 265.

[105] EMR, "Canadian Minerals and International Economic Interdependence", pp. 16-17.

[106] Taylor and Yokell, *Yellowcake*, pp. 214 (quote), 98. However, the authors provide no evidence to support their suspicion.

The members of the Uranium Institute are producing and consuming companies, both government-owned and privately-owned. The Canadian government supports the work of the Institute, but has also expressed interest in a formal producer-consumer intergovernmental organization for uranium. As noted above, Canadian officials solicited support from consuming countries for a producer-consumer arrangement before pursuing the cartel option. During United Nations discussions of commodity issues in the wake of the oil crisis, Canada indicated that it would be willing to develop consultative mechanisms involving uranium producers and consumers. In May 1974, when prices were rising and the cartel had begun to lag behind the market, Canadian officials responded favourably to expressions of official American interest in a producer-consumer arrangement for uranium, although Ottawa was unwilling to take the lead in organizing a meeting of producers and consumers.[107] This was not a surprising attitude, since strong market conditions were then working very much to the advantage of producers. Again in 1976, when Canada was under fire in the United States for its role in the uranium cartel, Ottawa expressed support for "an effective producer-consumer dialogue" on uranium.[108]

Conditions in international uranium markets in the mid-1970s were so tight that producers did not need either a cartel or a producer-consumer organization to support uranium prices. According to one analyst, "under existing market conditions and with the close relationships developed among cartel members and their governments in earlier years, the objective of monopolistic pricing should have been relatively easy to pursue, even if the formal cartel apparatus was scrapped in 1975".[109] In fact, Canada alone had considerable market power and used that power to influence prices for a brief period in the mid to late 1970s. In the immediate wake of the first oil crisis, France withdrew from the market to reserve its uranium for domestic energy production, and South Africa cut back exports as a side-effect of changes in gold mining triggered by high gold prices (uranium is produced in

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[107] Letter from J.R. McKinney, Minister, Canadian Embassy in Washington, to Julius L. Katz, Deputy Assistant Secretary, International Resources and Food Policy, U.S. Department of State, May 6, 1974. This letter was released by the Canadian government as part of its defence of Canadian participation in the uranium cartel.

[108] "Statement by Alastair Gillespie, Minister of Energy, Mines and Resources", 22 September 1976, p. 2.

[109] Radetzki, *Uranium*, p. 118.

South Africa as a byproduct of gold mining). In 1974, production from Australian deposits was postponed because of health and environmental concerns. As of 1974, therefore, Canada was the only country with a substantial amount of uranium available for export.[110]

The Canadian government used Canada's near-monopoly of international uranium supply to assume "an aggressive role in assuring that any uranium sold for export [was] sold at the highest possible price".[111] In October 1973, the Canadian government decided not to approve exports to the United States at less than cartel prices;[112] in 1975 the AECB encouraged Canadian producers to renegotiate earlier contracts to reflect recent increases in market prices; and in 1977 the AECB required that all new contracts must provide for renegotiation in future years to reflect world market prices and for escalating floor price clauses to protect producers if market prices fell.[113]

Another Canadian policy tending to force market prices up was the decision to require Canadian uranium producers to set aside a substantial portion of their reserves for future use by domestic consumers. The policy, announced in September 1974 in the context of exaggerated fears of energy shortages, was intended to ensure that Canadian utilities would have secure access to uranium supplies regardless of developments in international markets.[114] It initially appeared to reduce the size of Canadian uranium reserves available for export and therefore made consumers more willing (at a time of great concern about security of supply) to accept the higher prices being demanded by producers in Canada and elsewhere. This effect of the policy, combined with the belief abroad that the Canadian policy was "unrealistic and exaggerated" in light of the strong likelihood that large new reserves would be found in Canada, led one observer to contend that the rationale for the Canadian policy "was simply to support the price rise" of 1974.[115]

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[110] Ibid., p. 17; McIntyre, *Uranium, Nuclear Power, and Canada-U.S. Energy Relations*, p. 49; Gray, *The Great Uranium Cartel*, p. 169.

[111] Taylor and Yokell, *Yellowcake*, p. 198.

[112] The American market was to have been excluded from the cartel arrangements. According to a Gulf file memo written by F.R. O'Hara and dated 15 October 1973, "The Canadian government has changed its position and stated that it will not approve exports of Canadian uranium into the United States at less than group prices"; reprinted in: United States, *International Uranium Cartel*, volume II. Following this change in policy, in early 1974 Rio Algom was forced by the AECB to raise the price at which it was offering to sell uranium to a major U.S. utility to the cartel price: D.J. LeCraw, "The Uranium Cartel: An Interim Report", *The Business Quarterly* 42(4) (Winter 1977), p. 80.

[113] Greenwood, "Uranium", pp. 351-52.

[114] Ibid., pp. 530-51; Runnalls, EMR, "The Uranium Industry in Canada", pp. 35, 48-51.

Late 1970s to Present

Uranium market conditions worsened rapidly in the late 1970s and early 1980s. The high prices of the mid-1970s stimulated exploration and production for export in a number of countries. Canada's share of non-communist world production fell from 22.0 percent in 1976 to 16.3 percent in 1980.[116] Demand failed to increase as rapidly as had been projected, and uranium production continued to exceed commercial demand as it had in every year since the beginning of the commercial nuclear power industry in the mid-1960s.[117] Growing opposition to nuclear power, especially after the Three Mile Island nuclear accident in 1979, led to cancellations of orders for nuclear reactors and to extended regulatory delays in the completion of reactors already under construction. The slowdown in the nuclear power generating industry was greatest in the United States, while some European countries (led by France) have continued to build new nuclear power plants.

Excess supply in international uranium markets began to force spot market prices sharply downwards in the late 1970s. An important factor was the emergence of an active secondary market in natural and enriched uranium. Utilities which had signed long-term contracts in the mid-1970s for far more uranium than they eventually required tried to sell their excess supply in competition with primary uranium producers.[118]

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[115] Radetzki, *Uranium*, p. 128. Others agree that the effect of the policy was to push prices up, but do not conclude that this was the intent of the policy: Donald J. LeCraw, "Uranium Supply and Demand: Implications for Policy", in G. Bruce Doern and Robert W. Morrison, eds., *Canadian Nuclear Policies* (Montreal: Institute for Research on Public Policy, 1980), pp. 121-36.

[116] Calculated from *Canadian Minerals Yearbook 1985*, p. 64.11.

[117] OECD Nuclear Energy Agency and the International Atomic Energy Agency, *Uranium: Resources, Production and Demand Overview* (Paris: OECD, 1986), p. 14.

[118] These trends in international market conditions in the late 1970s and early 1980s are detailed in Thomas L. Neff, *The International Uranium Market* (Cambridge, Mass.: Ballinger Publishing Company, 1984).

By 1984, the continual excess of production over demand had led to the build-up of uranium inventories estimated to be equivalent to three to four years of reactor demand.[119]

While there are a number of serious problems facing the Canadian industry, conditions are not as bad as the global market situation might indicate. Canada's share of non-communist world production rose from 16.3 percent in 1980 to 28.5 percent in 1984 as new mines in Saskatchewan came on stream and high-cost producers (mainly in the United States) were forced out of business. Cuts in production in the United States and other producing countries made 1985 the first year in the entire history of the commercial uranium market in which actual consumption exceeded production.[120] The long-established Canadian uranium producers based in the Elliot Lake region of Ontario face costs of production that are much higher than current spot market prices, but they are protected by high prices specified in the long-term contracts they signed during the boom years of the mid-1970s. These producers also tend to export mainly to Western Europe and Japan, where the nuclear power industries have held up much better than in the United States and where consumers are more willing to sign long-term contracts at premium prices to ensure security of supply.[121]

Saskatchewan producers have fewer long-term contracts negotiated when prices were high in the mid-1970s, but they also face much lower costs of production. They mine high-grade ores which can be recovered by surface mining techniques. Low costs of production have permitted Saskatchewan producers to capture a large proportion of new international uranium demand in the 1980s. Their success has depended upon the federal government's willingness to approve export contracts at prices well below those specified in contracts of the mid to late 1970s. Aggressive marketing by Saskatchewan producers has contributed to the fall in uranium spot market prices in 1984 to their lowest levels in ten years. 1984 prices fell to approximately $17.00 (U.S.) per pound, compared to $42.00 per pound in 1977 and approximately $30.00 per pound for deliveries under medium to long-term contracts in 1984.[122] American utilities have been especially active buyers of Saskatchewan uranium because they are less encumbered than overseas utilities with long-term high-cost contracts signed in the 1970s.[123]

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[119] OECD Nuclear Energy Agency and the International Atomic Energy Agency, *Uranium: Resources, Production and Demand Overview*, p. 14.

[120] Study by the Uranium Institute, cited in *Globe and Mail*, January 31, 1987, p. B7.

[121] *Canadian Mineral Yearbook 1980*, p. 520; Greenwood, "Uranium", p. 379; McIntyre, *Nuclear Power, and Canada-U.S. Energy Relations*, pp. 18, 51; *Financial Post*, May 10, 1986, p. 14.

Two main threats face the Canadian industry. In the long run, the troubles of the worldwide nuclear power generating industry are likely to severely constrain demand for uranium. The good news of 1985, when international uranium consumption exceeded production for the first time, was followed in 1986 by the Chernobyl disaster. This was expected to further depress the prospects for nuclear power generation, and helped to prevent prices from rising despite the improved supply-demand balance.[124] Because of their low costs of production, Saskatchewan producers are expected to capture a significant share of new international demand, but that demand is likely to grow slowly at best.

In the short run, the more serious threat to the Canadian industry comes, once again, from U.S. protectionism. American producers were hit very hard by the decline of the American nuclear power industry and by the elimination (complete in 1984) of the uranium import embargo that had been in place since the early 1960s. American production declined from 16,800 tonnes (uranium content) in 1980 to only 5,720 tonnes in 1984.[125] Saskatchewan producers have been the main beneficiaries of the sales opportunities opened up by the decline in American production. The remaining U.S. producers and their representatives in Congress have demanded that import quotas be reimposed to reserve the bulk of American demand for American producers. They have argued that Canada is dumping uranium in the United States market at subsidized prices and that the maintenance of a viable uranium industry is critical for American national security.

American uranium producers have demanded that the Department of Energy implement a section of the Atomic Energy Act that calls for the imposition of an embargo on the enrichment of foreign uranium for use in domestic reactors if the Secretary of Energy finds that the domestic industry is not "viable". The same technique had been used to close the American market to foreign uranium in the 1960s and most of the 1970s.

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[122] *Mining Journal*, February 22, 1985, p. 125; OECD Nuclear Energy Agency and the International Atomic Energy Agency, *Uranium: Resources, Production and Demand Overview*, p. 18.

[123] Neff, *The International Uranium Market*.

[124] Interview.

[125] *Canadian Minerals Yearbook 1985*, p. 64.11.

The Secretary of Energy did determine in 1985 that the U.S. uranium industry was not viable, but refused to introduce restrictions. The Department was concerned that if it did introduce restrictions, American utilities would simply turn to overseas facilities to enrich their foreign source uranium. The American monopoly of western world enrichment capability ended in the late 1970s with the construction of enrichment facilities in western Europe, and the U.S. Department of Energy was concerned that the imposition of an embargo would exacerbate the problems of weak demand and foreign competition facing the American enrichment industry. In June 1986, a U.S. Federal Court judge in Denver came down on the side of the uranium producers, ordering the Department of Energy to impose restrictions. The latter appealed the ruling, and in July 1987 an appeals court upheld the original ruling. The Department of Energy has appealed the decision again to the United States Supreme Court, and a stay of the original order to impose restrictions has been granted until the Supreme Court reaches its decision. In the meantime, the Canada-U.S. bilateral trade agreement reached in October 1987 included the provision that Canadian uranium would be exempt from U.S. AEC enrichment requirements. Consequently, if the trade agreement is ratified, American consumers will be able to use Canadian uranium that has been enriched in U.S. AEC facilities even if the Supreme Court decides in favour of American producers. If the uranium producers lose the court battle, they have a number of other avenues to pursue. Many Congressmen are sympathetic to the claims of the industry, especially in light of its presumed importance for national security. There are also a number of contingency protection actions the industry could attempt.[126]

The threat of import controls has already made American utilities reluctant to sign long-term contracts with Canadian uranium suppliers.[127] The situation is similar in many respects to that in the early 1970s, when American protectionism threatened the viability of the Canadian industry. However, while the Canadian government responded to the earlier threat by initiating discussions leading to the creation of a uranium cartel, such a response is much less likely today. The problems facing the industry are not as severe today as in the 1970s, due in large part to the development of markets for Canadian uranium in western Europe and Japan. These two consuming regions account for a relatively secure majority of Canadian production.

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[126] David Haglund, "U.S. Uranium Import Policies: Protectionism and the National Security Agrument", in Wojciechowski, ed., *Structural Changes in the World Mineral Industry: Implications for Canada*, pp. 99-128; *Globe and Mail*, June 24, 1986, p. B6; *Financial Post*, October 4, 1986, p. 38; Interviews.

[127] Interview; *Financial Post*, October 4, 1986, p. 38.

Even if there was a greater need for remedial action, it is unlikely that the government would support a cartel. The reaction in the United States to the earlier cartel was extremely hostile, and the likelihood of a comparable response today would certainly deter Ottawa from repeating the earlier action. Foreign investment in the Canadian uranium mining industry has also increased, and this would also make unilateral producer action to support the market much more difficult. Utilities and other firms (some government-owned) from Germany, France, Japan, and Britain have participated in uranium exploration and mining in Canada with the active encouragement of their home governments. This is

> part of an explicit policy to insure supplies through direct control or priviledged access to deposits, as opposed to relying on [market outcomes, namely] the ability to obtain an adequate share of global production mined by independent domestic and foreign corporations, or on contracts or the spot market.[128]

In addition to ensuring a claim to an adequate volume of uranium, the intention of consumers in developing semi-captive foreign sources of supply is to give them greater leverage over the governments of producing countries in order to restrict the ability of the latter to manipulate supply to achieve economic or political objectives.[129]

The Canadian government is also more strongly committed today to consumer-producer study groups as a solution to mineral industry problems than it was in the early 1970s, and there are two organizations that serve this function for the international uranium industry. The Uranium Institute brings together producing and consuming firms to study market conditions and to consult on problems in the industry. Producing and consuming governments cooperate in the OECD Nuclear Energy Agency and the International Atomic Energy Agency to produce the biannual *Uranium Resources, Production, and Demand*, a comprehensive study of trends in markets and government policy, and to discuss problems in the industry. The Canadian government strongly supports the work of both of these organizations.[130] If Canadian officials judge that action is necessary to support the industry in the face of U.S. protectionism or declining global consumption, they are much more likely to resort to bilateral consultations (in the case of U.S. protectionism) or to consultations within multilateral organizations than they are to try to recreate a uranium cartel.

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[128] Steven J. Warnecke, *Uranium, Nonproliferation, and Energy Security* (Paris: The Atlantic Institute for International Affairs, 1979), p. 85.

[129] Ibid., pp. 96, 99-102; Neff, *The International Uranium Market*, pp. 12-15. The latter has data on consuming utility and government investment in foreign operations in all major producing countries.

Conclusions

Canada's participation in the international uranium cartel and Saskatchewan's cooperation with New Mexico in the cartel-like prorationing scheme (with Ottawa's acquiescence) were the products of exceptional circumstances and are unlikely to be repeated. In both cases, American protectionism (supplemented in the case of uranium by unfair competition in international markets from the U.S. AEC) threatened the viability of an entire industry. Both industries were politically important, in part simply because of their contributions to regional economies, but also because of their relationships to government economic development policies.

The uranium cartel and the Saskatchewan prorationing scheme were created at a time when governments felt less inhibited than today from intervening in international mineral markets. The uranium cartel was also created at a time when Ottawa felt less inhibited than usual from taking actions that could be construed as damaging to the United States and other western countries.

While the potash and uranium industries continue to face the threat of American protectionism, that threat is being dealt with today in bilateral trade access negotiations rather than in negotiations to create international agreements on production. One of the motives behind the Mulroney government's initiative for a trade agreement with the United States is to reduce the ever-present threat of American contingency protection actions that target Canadian resource products. The hostile reaction in the United States to Canada's participation in the uranium cartel (and, to a lesser extent, the potash prorationing scheme) has also made Ottawa extremely wary of suggestions for international regulation of mineral markets. The uranium and potash arrangements both fulfilled their objectives, but conditions have changed so much in the interim that these arrangements do not provide a model for action to support mineral markets in the 1980s.

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[130] Interviews.

5. TIN

Introduction

While Canada has consistently opposed schemes for intergovernmental regulation of international markets for minerals that it exports, it has participated in formal producer-consumer ICAs for a number of commodities that it imports. One of these agreements was for tin, a mineral exported primarily by developing countries. Canada's direct economic interest in international trade in tin is relatively minor, but the International Tin Agreement (ITA) has had considerable political importance in North-South relations. The history of the agreement and of Canada's participation in it reveals how political and economic factors interact to influence Canadian policy towards commodity market regulation.

Tin has a long history of intergovernmental regulation, beginning as early as 1921. The International Tin Agreement, with Canadian participation, regulated the international market continuously from 1956 to 1985, when it collapsed in a storm of legal and political controversy.

Tin is used primarily as an alloy with other metals in the production of tinplate, solder, white metal, and pewter, although its use in the chemical industry has also been growing in recent years. It is a comparatively valuable metal, worth approximately ten to twenty times as much as most base metals (it was worth approximately eight dollars (Canadian) per pound before the collapse of the ITA in 1985). World consumption of tin grew moderately from 1945 to 1973, but the trend since then has been steadily downward. Aluminum cans and other substitute packaging materials have captured traditional tinplate markets, in part because of rising tin prices.[1]

Canada has historically produced very small amounts of tin as a byproduct of other base metal mining, and most of its consumption requirements have been met by imports.[2] Canada is a relatively minor importer of tin in comparative terms, accounting for 1.9 percent of global tin imports in 1980. The largest importers are the U.S. (26.4 percent), Japan (19.2 percent), West Germany (9.9 percent), and France (6.3 percent).[3] Canada participated in the ITA as an importer, and "the main interest of both industry and government authorities has generally been the adequacy and price of tin supply".[4] Since tin accounts for a relatively small portion of the input costs of Canadian industrial consumers, concern with the adequacy of supply has tended to outweigh concern with ensuring low prices.[5]

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[1] G.E. Wittur and B. McKean, Mineral Policy Sector, Energy, Mines and Resources Canada, "Tin Markets and Institutions", *The International Minerals Scene* (June 1985), p. 7 (quote), 5-6, 10; World Bank, *Tin Handbook* (1981), pp. I-1-15, II-9.

[2] Wittur and McKean, "Tin Markets and Institutions", p. 6; *Canadian Minerals Yearbook 1985*, pp. 61-1-2.

Commercially significant deposits of tin were discovered in Canada many years ago, and since the early 1970s the Canadian government has expected that Canada would eventually become a significant tin producer. These expectations were realized in 1986, when Rio Algom opened a tin mine in East Kemptville, Nova Scotia. The capacity of this mine is approximately equal to Canadian consumption, so it was expected that Canada would become self-sufficient in tin or perhaps even a small net exporter in the late 1980s. However, the mine opened just as the international tin market collapsed due to the failure of the ITA buffer stock, and the mine soon went into receivership. The mine is still in operation, but its future is uncertain.[6]

For many years the production of tin for export was concentrated in three Southeast Asian countries - Malaysia, Indonesia, and Thailand - and Bolivia. Brazil and Australia have become important exporters in recent years. In 1982, shares of net world exports were as follows: Malaysia, 26.4 percent; Indonesia, 21.5 percent; Thailand, 19.0 percent; Bolivia, 14.8 percent; Australia, 5.9 percent; and Brazil, 3.2 percent.[7] As noted above, the major importers are all northern developed countries, giving international tin negotiations a strong North-South flavour.

Tin prices were unstable prior to the implementation of the first post-war ITA in 1956. Between 1956 and 1981, tin prices were quite stable compared to the prices of other commodities exported by developing countries, and trended upwards in both nominal and real terms. The ITA is generally held responsible for both the stability and the rising trend in prices over this period, although costs were also rising.[8] From 1981 to 1985, tin prices fell substantially due to the downward trend in tin consumption and to the global recession, and fell by a further 50 percent in the first few months after the collapse of the ITA in October 1985.

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[3] William L. Baldwin, *The World Tin Market: Political Pricing and Economic Competition* (Durham, N.C.: Duke University Press, 1983), p. 48.

[4] Wittur and McKean, "Tin Markets and Institutions", p. 5.

[5] Interviews.

[6] *Canadian Minerals Yearbook 1985*, p. 61.1; interviews.

[7] International Tin Council, *Tin Statistics 1972-1982* (1983). Brazil's share has since grown very rapidly.

1947 to 1970

Soon after the end of the second world war, several tin producing countries began to press for the re-establishment of the agreement among producers that had helped to stabilize tin prices in the 1920s and 1930s. Britain, which controlled over half of the world's tin production (mainly in Malaysia, still a British colony), insisted that consuming countries also be involved. An International Tin Study Group was established in 1947 to consider the problems of the industry and the prospects for producer-consumer collaboration. Most importing and exporting countries favoured the establishment of a commodity agreement for tin, but the United States opposed the idea. It was concerned that an ICA could interfere with its efforts to accumulate a large strategic stockpile of tin. High tin prices during the Korean War dampened producer interest in a regulatory scheme in subsequent years.[9]

Falling tin prices in 1953 and concern about American plans to reduce tin purchases for its strategic stockpile sparked renewed interest among tin producers in an ICA. A United Nations Tin Conference was convened in November 1953 and agreement was quickly reached. The International Tin Agreement (ITA) would use export controls and a buffer stock to stabilize the market. The United States argued that export controls should only be used when the price declined below an agreed price and 10,000 tons of tin had been purchased by the buffer stock manager. Other consuming countries, including Canada, agreed with producers that the International Tin Council should have the power to put export controls into effect at any time it so decided. This formula was incorporated in the agreement. The importing states insisted on a fairly large buffer stock, of 25,000 tons, although they refused to contribute to its cost.[10]

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[8] World Bank, *Tin Handbook*, pp. II-1-15, III-1-5, IV-1-3.

[9] William Fox, *Tin: The Working of a Commodity Agreement* (London: Mining Journal Books, 1974), pp. 196, 228; Baldwin, *The World Tin Market*, p. 75; Linda Cahn, "National Power and International Regimes: United States Commodity Policies, 1930-1980" (Unpublished Ph.D. dissertation, Stanford University, 1980), pp. 256 and 262-63; John Rowe, *Primary Commodities in International Trade* (London: Cambridge University Press, 1965), p. 170.

The negotiation of the 1953 ITA was facilitated by a blurring of the division between importers and exporters that usually characterizes international commodity negotiations. Some key consuming countries were unusually responsive to exporters' concerns because of the fact that their own companies were deeply involved in tin mining in Southeast Asia and Africa. Britain and Belgium also supported the agreement because of their colonial relationships with producing areas.[11]

Canada supported the creation of the ITA. Its support was linked to its concurrent efforts to persuade wheat-importing countries to join an international wheat agreement. Canadian diplomats believed that it was in Canada's interest to join international commodity agreements as an importing member, to help set a precedent that other countries might be encouraged to follow. Canada also supported the ITA because a number of the countries that the ITA was intended to benefit were political allies of Canada, including the Southeast Asian tin producers themselves, and Britain, where many tin mining companies were based. Canada also shared the perception of most tin-consuming countries that tin was a quasi-strategic mineral. In the context of the Cold War, Canada and other western countries believed that the creation of the ITA could help to ensure continued investment in tin production by providing stable and remunerative prices. Finally, Canada, like other nations, had some confidence in the use of an ICA to stabilize the tin market due to the successful pre-war history of intervention using the same export control and buffer stock mechanisms specified in the ITA.[12]

Hostility in Congress and the American business community to the perceived "tin cartel" precluded American membership in the ITA. Germany, Japan, and the Soviet bloc countries also did not become members. The absence of these large consuming states meant that Canada was the third largest consumer (after Britain and France) participating in the first ITA.[13]

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[10] Fox, *Tin*, pp. 223-25, 283-84; Rowe, *Primary Commodities in International Trade*, p. 171. The 1953 agreement is in: United Nations, *Treaty Series*, Vol. 256, p. 31.

[11] Baldwin, *The World Tin Market*, pp. 79-82; Fox, *Tin*, p. 256.

[12] Interviews.

[13] Baldwin, *The World Tin Market*, pp. 81-82; Cahn, "National Power and International Regimes", p. 260; Fox, *Tin*, pp. 254, 266.

The ITA was renewed virtually unchanged in 1960. Tin prices remained within the range specified in the first agreement for much of the period of its operation. Market prices rose above the ITA's ceiling level in the early 1960s, and remained above the ceiling even after it was revised upward twice.[14] Canada was generally satisfied with the operation of the agreement, despite its failure to bring prices within the agreed range. Canada agreed to the upward revisions of the price range because they seemed to reflect market forces, namely strong demand and rising production costs. Canada's support for the ITA during this period also reflected concern in Ottawa with the threat posed by the war in Vietnam to the political stability and security of Southeast Asian tin producing countries. The ITA was viewed as one way to support pro-western governments in the region.[15]

Negotiations for a third ITA began in March 1965. The producing countries were anxious to apply the principles enunciated by the Group of 77 at the inaugural 1964 UNCTAD conference, and demanded an increase in the ITA price range to reflect strong market conditions over the previous few years. Canada, along with the other consuming countries, refused to agree to an increase. They believed that increases negotiated in 1962 and 1963 were adequate and that recent market price levels were inflated and could not be sustained. The producers eventually backed down, fearful that if they did not do so there would be no agreement in place when the market inevitably weakened.[16] Producing countries also demanded that consumers share the costs of the buffer stock. They felt that it was unfair that developing countries had to bear the entire burden of financing the buffer stock when in theory the developed consuming countries shared in the benefits. However, the governments of the consuming countries were uninterested in funding a buffer stock that had failed to protect the ITA ceiling price. They also believed that sales from the U.S. strategic stockpile (which was much larger than the ITA buffer stock) could be counted on to moderate tin prices. Canada apparently shared these views.[17]

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[14] Kerstin Barkman, "Costs and Finance of the Tin Buffer Stock", *Journal of World Trade Law* 10 (March-April 1976), pp. 499-500; Fox, *Tin*, pp. 281-99, 312, 320-52; Baldwin, *The World Tin Market*, pp. 84-86; United Nations Document E/CONF.32/5 (1960); Cahn, "National Power and International Regimes", p. 296.

[15] Interviews.

[16] Fox, *Tin*, pp. 354-58.

[17] United Nations Document TD/TIN.3/5 (1965), p. 26; interviews.

Producers feared that sales from the American strategic stockpile would depress the market, and therefore put pressure on Washington to restrict stockpile sales. In October 1966 an agreement was reached whereby the latter promised to manage sales from the tin stockpile so as not to undermine the activities of the ITA buffer stock. In practice, this meant that the United States would not make sales from the stockpile as long as the market price was in the lower sector of the ITA price range. This agreement represented an important concession to the tin producers, and it reflected the strategic concerns of American foreign policy makers. Low tin prices could destabilize friendly governments in Bolivia and Indonesia and could alienate Thailand, whose airfields were important for American forces fighting in Vietnam.[18]

Export quotas were imposed in September 1968 in response to falling prices, but during 1969 the underlying supply demand situation changed as Soviet bloc imports rose and U.S. stockpile sales ended. The ITA buffer stock began to sell tin, but export controls were not terminated until December 1969. The fact that export controls remained in force in the face of rising prices attested to the power of the producing countries in the International Tin Council and to their preference for export quotas as the main control instrument of the agreement.[19] Despite this episode, the consuming countries believed that the third tin agreement had worked much better than the second agreement, which had failed to keep prices within the agreed range for most of its life.

The negotiations in 1970 that created the fourth ITA were dominated by the issue of the method of financing the buffer stock. Producers again demanded that consuming members share the financial burden. Canada and other consumers rejected this demand, believing that the inability of the buffer stock to defend the ITA ceiling during the second and third ITAs indicated that producers were the only beneficiaries of buffer stock operations and should therefore pay the entire cost themselves.[20] Underlying consumer opposition to joint buffer stock financing was the realization that the ITA was inherently better able to defend the floor price than it was to defend the ceiling price, since it had two instruments (the buffer stock and export quotas) to defend the former and only one (the buffer stock) to defend the latter. Furthermore, since producers had tended to make their contributions to the buffer stock in cash rather than in tin, the buffer stock often had little tin to sell when prices rose. Finally, consumers continued to believe that sales from the huge American stockpile provided better protection against rising prices than could any ITA buffer stock of feasible size.

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[18] Fox, *Tin*, pp. 348-49; Cahn, "National Power and International Regimes", p. 273.

[19] Christopher Gilbert, *The Post War Tin Agreements and Their Implications for Copper* (London: Commodities Research Unit, March 1976), pp. 17-18; L.N. Rangarajan, *Commodity Conflict* (Ithaca, New York: Cornell University Press, 1978), pp. 228-29; Fox, *Tin*, p. 373.

[20] United Nations Document TD/TIN 4/C.1/SR.1-24 (1970), p. 72 and passim.

In 1972, France and the Netherlands established an important precedent by making voluntary cash contributions to the buffer stock fund. While their contributions were small in comparison to the total contributions of producers, their actions lent support to the principle of consumer financial responsibility.[21] Canada considered making a similar voluntary contribution during this period. The argument was made that Canada, as an exporter of many minerals and a potential exporter of tin, had an interest in supporting a principle (consumer financing of market stabilization) that could rebound to Canada's benefit in future mineral agreements. However, the prevailing view was that the tin agreement was biased too much in favour of producers. There was also opposition to the financial cost of a Canadian contribution to the buffer stock fund.[22]

1973-1979

Tin markets were extremely volatile during the oil crisis years of 1973-74. Prices rose sharply despite large sales from the buffer stock. The ITA price range was revised upwards in October 1973, May 1974, and January 1975. Canada agreed to these increases because they seemed to reflect market conditions and rising production costs and therefore to be necessary to ensure long-term adequacy of tin supply.[23]

Tin exporting and importing countries met in 1975 to negotiate a new agreement for the period 1976-81. The United States announced that it would seek membership in the fifth ITA, and this meant that the negotiations largely revolved around American demands. The most contentious issue at this round of talks was once again the method of financing the buffer stock. Canada, in a reversal of its previous stance, sided with the producers and pushed for obligatory joint financing. Canadian officials now believed that the ITA required a larger buffer stock if it was to become less dependent on export controls (which tended to distort the market and did nothing to defend the price ceiling), and felt that the producers could not be expected to bear this burden alone. Canadian officials were also looking to the future when tin production in Canada was expected to increase. If Canada became a net exporter, it would benefit from joint producer-consumer financing of the buffer stock. Politically, it seemed unfair (as the producing countries had argued) that developing countries had to bear the entire financial burden of market stabilization. While the fairness issue had not swayed opinion in Ottawa during earlier ITA renegotiations, 1975 was a time of intense diplomatic pressure on Canada and other developed countries from Third World commodity producers seeking trade reforms. Canada's forthcoming stance on the buffer stock financing issue was due in part to its desire to respond positively to these broader demands.[24] Thus, when the United States and West Germany blocked mandatory consumer contributions, Canada joined France, the Netherlands, Belguim, and Britain in making a voluntary contribution. Canada pledged $4.5 million (an amount based on Canada's share of world trade in tin) to the buffer stock fund in July 1977.[25]

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[21] Baldwin, "The World Tin Market", p. 89.

[22] Interviews.

[23] Interviews. Concerns about the adequacy of tin supply are understandable in the mid-1970s context of widespread fears of raw material shortages.

Meetings during the life of the fifth ITA were dominated by acrimonious disputes over the price range. Market prices rose during much of the period in response to strong demand (high oil prices had improved the competitive position of tinplate relative to petroleum-based plastic packaging), declining ore grades in Bolivia and Malaysia, and the failure of tin production to increase to match the growth of demand.[26] Bolivia led the producers in demanding upward revisions in the ITA price range and the indexation of the ITA price floor to high-cost producers' costs of production. The United States led the consumers in resisting increases of the magnitude demanded by producers, and all consumers rejected the demand for indexation. Consumers did agree to frequent increases in the price range. While the cumulative impact of these increases was quite substantial, the ITA price range nevertheless tended to lag behind rising market prices. Canada was more willing than the U.S. to see the price range increased to reflect strong demand and rising production costs, although not to the heights demanded by producers. Canadian officials believed that higher prices were necessary to ensure adequate supply, and, as a producer of other minerals, recognized that mining costs were rising sharply.[27]

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[24] Interviews.

[25] North-South Institute, *Commodity Trade*, p. 76. The U.S. finally made a voluntary contribution of 5,000 tons of tin from its strategic stockpile to the ITA buffer stock in spring 1977, at a time when Washington was very concerned that the U.S. was viewed as completely intransigent in North-South negotiations; Cahn, "National Power and International Regimes", p. 289.

[26] *Far Eastern Economic Review*, January 21, 1977, p. 98, and March 18, 1977, p. 96.

Canada joined with other consumers in criticizing producer government policies which they believed had prevented supply from increasing in response to rising prices. High tax levels and other impediments to new mine investment came in for particular criticism. By the end of the decade Canadian officials were arguing that tin prices had been raised to artificial heights by exporters' production control policies.[28]

1980s

Negotiations during 1980-81 for a sixth tin agreement were prolonged by this acrimonious climate. Producers initially called for the inclusion of provisions to regularly revise the price range to accommodate increasing production costs and world inflation.[29] Consuming countries rejected the demand for regular revisions of the price range. Canadian officials believed, based on the experience of the late 1970s, that these would merely lead to higher prices which would do nothing to stimulate production or investment because of producer government policies that interfered with normal supply responses to market conditions. They also feared that continuous review of the price range would lead to interminable conflict in the International Tin Council.[30]

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[27] *Far Eastern Economic Review*, various issues; *Latin American Commodities Review*, various issues; United Nations Document TD/TIN.6/3 (1980), pp. 9-10; interviews.

[28] Interviews; *International Minerals Scene*, vol. 1, no. 2 (September 1978), p. 8.

[29] *Latin American Commodities Report*, February 22, 1980; *Far Eastern Economic Review*, February 29, 1980, p. 37; interviews.

[30] Interviews. By 1981-82, in the context of depressed international demand for minerals, it became apparent that tin prices were already to high (espe-

Most of the debate in the 1980-81 negotiations focused on the size of the buffer stock and the conditions under which export controls would be used. The United States proposed that export control provisions be eliminated and that the ITA rely solely on a large (70,000 ton) buffer stock funded jointly by producers and consumers. Washington felt that export controls tended to distort the market by supporting inefficient producers and by impeding the expansion of output. A buffer stock would avoid these problems and, unlike export controls, would have the potential to moderate high as well as low prices.[31] Canadian officials had considerable sympathy for these arguments, but also believed that export controls in times of weak demand could keep producers in business and thereby help to maintain the production capacity necessary to avoid shortages and high prices when demand improved. For this reason, and because it knew that producers would refuse to agree to the abolition of export controls, Canada did not support the U.S. proposal.[32] Most other consuming countries were also willing to see export controls retained in the new agreement.

Producers called for a much smaller buffer stock (20-30,000 tons) than that proposed by the United States, and demanded that export controls be retained. Producers feared that the large buffer stock proposed by Washington would, in combination with the American strategic stockpile, serve to depress the market.[33]

Agreement was reached in June 1981 after the United States concluded that it had to make some concessions in order to avoid alienating the strategically important Southeast Asian tin producers. The sixth ITA provided for a 30,000-ton buffer stock funded by member governments, supplemented by another 20,000-ton contingency stock financed by commercial loans guaranteed by member governments. Export quotas would be used once 35,000 tons of metal had been accumulated in the buffer stock. Canada supported this compromise as a workable package which could be funded even if the U.S. decided not to participate (as was considered likely at the time).[34] Of interest for future developments, the

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cially compared to substitutes) and that the real problem was one of excess supply. This reinforced consumers opposition to upward revisions of the ITA price range.

[31] Interviews.

[32] Interviews.

[33] Interviews; *Latin American Commodities Report*, April 18 and May 12, 1980; *Far Eastern Economic Review*, May 23, 1980, p. 63.

[34] Interviews.

text of the agreement specified that the 20,000-ton contingency stock was "to be financed from borrowing, using as security stock warrants and, if necessary, government guarantees" (Article 21).

The United States and Bolivia ultimately decided not to join the agreement. The former still believed that the buffer stock was too small and that the agreement put too much reliance on export controls, and by the time the treaty came up for ratification in Washington, the anti-regulatory Reagan administration had been inagurated. Bolivia felt that export controls should be used as soon as the buffer stock reached 15,000 tons, and wanted the International Tin Council to have greater control over sales from the American strategic stockpile.[35]

Canada decided to join the sixth ITA despite reservations about the agreement and its implications for other potential mineral agreements. Most officials believed that previous ITAs had helped to stabilize the market,[36] although the agreements were also seen to have put upward pressure on tin prices by helping producers to reduce exports and by buffer stock purchases when markets were weak. Upward pressure on prices had also come from the failure to remove ITA export quotas quickly enough when prices were rising. Thus, it was recognized that the ITA incorporated an element of resource transfer from developed importing countries to developing exporting countries.[37] Given the long history of the tin agreements and their use of a variety of market intervention mechanisms, Canadian officials recognized that the ITA was widely viewed as a likely model for international commodity agreements for other minerals.[38] Some officials were deeply concerned that international pressure might develop to create ICAs modelled on the ITA for important Canadian export minerals such as copper, iron ore, and nickel. They feared that the market-distorting elements of the ITA (export quotas that protected inefficient producers and support for prices at levels which encouraged consumers to switch to substitutes) could cause great harm to Canadian mineral producers if applied to their exports.[39]

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[35] *Latin American Commodities Report*, January 9 and April 17, 1981; *Far Eastern Economic Review*, May 1, 1981, pp. 46-47; Baldwin, *The World Tin Market*, pp. 3-4 and 222-24; interviews.

[36] This was not a unanimous view: some officials felt that the agreement had had a destabilizing impact.

[37] Interviews.

[38] Wittur and McKean, "Tin Markets and Institutions", p. 14.

[39] Interviews.

Canada *joined the sixth* ITA despite official concerns about its impact on tin prices and the possible impact of the tin agreement as a model for other mineral commodity agreements. The primary motives were diplomatic. Canada wanted to cultivate good relations with the Southeast Asian tin producers, and membership in the ITA was seen as one way to demonstrate Canada's concern for the well-being of these countries. Tin price support was also viewed as a way to strengthen capitalist developing countries in a region strongly influenced by Vietnam and mainland China. Finally, while pressure in UNCTAD for ICAs had receded by 1982, membership in the ITA was still motivated in part by a desire to demonstrate support for the Third World's objectives. The costs of the agreement were viewed as reasonable. Dofasco and Stelco, the steel companies that account for the bulk of Canada's tin imports, were consulted about Canadian membership and expressed indifference regarding the ITA's impact on tin prices as long as they had access to adequate supplies.[40] Canada's total financial commitment to the ITA consisted of a $6.7 million contribution to the buffer stock fund, "with a potential liability of an additional $7 million should certain government guarantees be invoked and called".[41]

The sixth ITA experienced difficulties from the time that it came into provisional operation in July 1982.[42] The International Tin Council had imposed a 10-percent cut in export quotas when the price fell briefly below the ITA floor in April 1982. The market remained weak, so in July 1982 the cut was increased to 36 percent and was accompanied by buffer stock purchases. In fall 1982, Malaysia began to press other producers to join in international action outside the ITA to support the market. Agreement was reached to create the Association of Tin Producing Countries (ATPC, formally constituted in June 1983), but Malaysia was unable to persuade Indonesia and Thailand to undertake joint market intervention. Australia's decision to join the ATPC made joint producer action even less likely, although Canadian officials considered the possibility quite real.[43]

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[40] Interviews.

[41] These funds would be returned to Canada only if the tin accumulated in the buffer stock under the fifth and sixth ITAs was sold off. Canada also contributed $45,000 annually toward the ITC operating costs. Wittur and McKean, "Tin Markets and Institutions", pp. 15-16.

[42] Provisional because the consuming state members did not account for 80 percent of world consumption.

The East Kemptville tin deposit in Nova Scotia was being developed in the early 1980s, and Canadian officials gave some thought to the implications of this for Canada's membership in the ITA. There was a possibility that Canada could temporarily become a net tin exporter when production peaked. Officials wanted to ensure that Canada would still be considered a consuming member of the agreement and therefore not subject to export controls. They believed that Canada had a good case to make, since net exports would never be large and production was projected to decline from its initial peak as the higher grade section of the orebody was exhausted.[44]

As it turned out, the tin agreement collapsed before the issue became salient. The tin market was weak during 1983 and 1984 due to stagnant demand and growing global production. Only the International Tin Council's imposition of 40 percent cuts in export quotas and buffer stock purchases kept prices above the floor. The buffer stock manager drew first on funds provided by member governments, but these were inadequate, in part because of the absence from the agreement of several important producing and consuming countries. As noted earlier, the sixth ITA included provision for the buffer stock manager to borrow from commercial lenders, and he used this authority to borrow substantial funds to finance additional tin purchases. Borrowed funds were used to purchase physical tin on the Kuala Lumpur Tin Market (in Malaysia) and to engage in forward selling and buying at the LME. Money for purchases in Kuala Lumpur was borrowed from commercial banks, which demanded tin warrants as collateral, while funds for transactions on the LME were borrowed from commercial banks and from LME brokers. This system was able to function as long as the British pound was depreciating relative to the Malaysian dollar, since the depreciation buoyed the price of tin in pounds sterling on the LME. In fact, between 1982 and 1984 the buffer stock manager often made a profit on the sale of tin at the end of a forward contract. The profit tended to offset the interest he had to pay on the borrowed funds. However, the buffer stock manager pointed out to the International Tin Council that he did not have sufficient resources to use this system to defend the floor price indefinitely.[45]

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[43] Wittur and McKean, "Tin Markets and Institutions", p. 17; *Far Eastern Economic Review*, June 3, 1983, pp. 51-53; interviews.

[44] Wittur and McKean, "Tin and Markets and Institutions", pp. 16-17.

In 1985 the currency trends that the buffer stock manager had relied upon to support his operations reversed, and he began to lose money each time he sold tin in London at the end of a forward contract. In April and May 1985 the International Tin Council gave him permission to buy tin below the ITA floor price in Kuala Lumpur so as to reduce his losses on the LME, but this was insufficient and in October 1985 he informed the LME that he no longer had the financial resources required to meet his forward purchase commitments. By this time the International Tin Council, through the buffer stock, owed almost 900 million to 14 banks and 14 LME brokers, and controlled (in the buffer stock or through forward contracts) almost 80,000 tons of tin (approximately half of annual global demand).[46]

The causes of the tin crisis were not difficult to identify. A situation of excess supply had existed for a number of years despite ITC export controls. Exports from non-member countries such as Bolivia, China, and especially Brazil had grown despite weak demand, and large volumes of tin had been smuggled out of Southeast Asian producing countries in circumvention of ITC export controls.[47] Banks and LME brokers had been willing to make large loans to the ITC buffer stock manager with little security to back them up in the (ultimately mistaken) belief that the 22 ITC member states would cover the ITC's debts. Finally, many ITA member states apparently were unaware of the details of the buffer stock manager's operations and did not realize the seriousness of the problems facing the ITC until it was too late.

Consuming members of the ITA did express concern about the operations of the buffer stock manager before the crisis broke, but none realized the need to take decisive action to restrict his borrowing. According to Canadian officials writing in spring 1984, the "defence of the floor [price] has severely eroded the capital base of the buffer stock and severely tested the ingenuity of the Buffer Stock Manager. Also tested was the tolerance of many consuming members who thought some of his tactics were outside the scope of what was permitted under the Agreement". These officials believed at the time of writing "that the Agreement and the Buffer Stock Manager have weathered the worst of the storm".[48]

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[45] Robert Gibson-Jarvie, *The Tin Crisis: The Final Chapter*, (Cambridge: Woodhead-Faulkner, (1986); interviews.

[46] The best sources on the tin crisis include various articles by Stephan Wagstyl in the *Financial Times* (London) from October 1985 through May 1986, and Gibson-Jarvie, *The Tin Crisis*. Information was also obtained from interviews.

[47] *Financial Times* (London), November 1, 1985, p. 22.

Trading in tin on the LME and the Kuala Lumpur Tin Market was immediately suspended after the buffer stock manager announced that he had run out of funds, and intense negotiations began among the ITA members, the banks, and the LME brokers. Creditor banks and brokers called on ITA members to assume the debts accumulated by the buffer stock manager, but only the British government was willing to do so. Britain was deeply concerned about the viability of its banks and about the future of the LME, while other governments were more concerned to avoid accepting legal liability for the debts of an intergovernmental organization. By late December negotiations were focused on a proposal for the creation of a new company that would purchase the liabilities of the ITA, including the tin that the buffer stock manager had contracted to buy. The company, called "Newco" or "Tinco", would then sell this tin over a three-year period to minimize the disruption of the market. Tentative plans called for ITA member governments to contribute a total of 115 to 200 million, brokers 50 to 80 million, and the banks 20 million.[49]

The Tinco plan won the reluctant support of most consuming countries in the ITA. Canada, which would have had to contribute 2.6 to 4.6 million,[50] supported the plan as a way to avoid costly legal battles and the risk of having courts establish the precedent that governments are liable for the debts of intergovernmental organizations. However, the Tinco plan collapsed in early March 1986 due to the opposition of Indonesia and Thailand. They cited various deficiencies in the proposal, and Indonesia claimed that it could not afford its contribution at a time of declining oil prices. Many observers believed that more fundamental reasons for their opposition included a reluctance to assist creditor banks and brokers and the belief that they could expand their shares of the market (given their low costs of production) if they were free of export controls.[51]

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[48] Wittur and McKean, "Tin Markets and Institutions", p. 16. This article was originally written in April-May 1984.

[49] Gibson-Jarvie, *The Tin Crisis*, pp. 14-23, 40-44; *Financial Times* (London), December 4, 1985, p. 30, and February 4, 1986, p. 36; *Far Eastern Economic Review*, pp. 74-75.

[50] This amount was calculated on the basis of Canada's 2.3 percent share of ITC votes *Globe and Mail*, February 5, 1987, p. B21 and a total governmental contribution of 115 and 200 million.

With the collapse of the Tinco plan, individual creditors took action to minimize their losses. The banks became free to sell the 45,000 tons of tin they controlled as collateral for failed loans, and one bank and two brokers obtained the last 17,000 tons of tin controlled by the ITA in an out-of-court settlement of a suit they had brought against the ITA. By April 1986, tin was trading at half its pre-crisis October 1985 price.[52]

Since the failure of the Tinco discussions, creditor banks and brokers have launched a variety of legal actions against the ITA and its 22 member governments to try to recover some of the losses they sustained in the collapse of the tin buffer stock. Canada is a co-defendant in some of these suits. Closest to home, Noranda recently lauched a suite against the Government of Canada to recover losses estimated at $38 million (Cdn) suffered by Rudolf Wolff, an LME broker owned by Noranda in one of the founding member, of the LME. The suite alleges (among other things) that Canadian government officials were aware that the buffer stock manager was borrowing heavily to finance tin purchase, "'yet ... did not order him to cease such operations and borrowings but instead required him to continue to support the price of tin without having any intension of making further cash contribution to the buffer stock'".[53]

Legal actions arising out of the collapse of the ITA have attracted intense interest from all governments (not just ITA member countries) because courts' determination of the legal right of private entities to sue sovereign governments to recover debts owed by an intergovernmental organization and for losses suffered because of the actions of an intergovernmental organization will establish precedents for government liabilities in all intergovernmental organizations. An early attempt by one creditor to force the ITA into bankruptcy under the British companies act was rejected by a London judge who ruled that the court did not have legal jurisdiction over the organization. It may be years before the issue of liability is settled, and governments are pursuing the possibility of out of court settlements that would sidestep the issue of liability, thereby avoiding setting a precedent.[54]

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[51] Interviews; *Financial Times* (London), April 4, 1986, p. 34; *Far Eastern Economic Review*, March 20, 1986, p. 154.

[52] *Financial Times* (London), May 1, 1986, p. 30; Gibson-Jarvie, *The Tin Crisis*.

[53] *Financial Post*, October 19, 1987, pp. 1-2.

[54] Interviews; *Globe and Mail*, February 5, 1987, p. B21.

Canada's concerns in the tin crisis go beyond those of the ultimate financial cost and the government's legal liability. The crisis had a destabilizing impact on other mineral markets and on the LME as an institution. LME prices for other minerals plummeted in the wake of the buffer stock manager's inability to meet his financial commitments to LME brokers. While some of the decline in prices for other metals reflected conditions of oversupply in the specific markets themselves, downward pressure was also attributed to sales by brokers trying to cope with huge financial losses on loans to the ITA buffer stock and to sales by speculators, to whom metal stocks now appeared much more risky. Nickel prices fell so sharply (from about $2.30 U.S. in early 1985 to $1.80 U.S. in December) that Inco called for the suspension of nickel trading on the LME. The LME refused this request because the suspension of a second metal would simply worsen the situation for LME traders. LME zinc prices also fell sharply, and Cominco announced that its zinc prices would no longer be related to LME prices. Because many LME traders had suffered debilitating losses on loans to the ITA buffer stock, there was also a danger that the LME itself would cease to function effectively. While mineral producers in Canada and elsewhere have often complained about the instability of LME prices, it is widely recognized that the LME plays a vital role in the efficient functioning of international mineral markets.[55]

More specific Canadian interests suffered from the collapse of the ITA. The Bank of Nova Scotia was one of the bank creditors to the organization, although it managed to minimize its losses by being the first bank to sell the tin that it was holding as collateral for loans to the ITA. The collapse of tin prices in the wake of the crisis forced the newly opened East Kemptville tin mine in Nova Scotia into receivership, and its future is uncertain.[56] Finally, there were the losses suffered by Rudolf Wolff which led to Noranda's suite against the Government of Canada.

Concern about the implications for other mineral markets and for the future of the LME encouraged Canada to seek a quick solution to the tin crisis. Ottawa was not willing to follow Britain and offer to guarantee Canada's share of the ITA debt because it wanted to avoid the legal precedent that such a confession of liability could establish. Instead,

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[55] Frank Kaplan, "There's trouble with a capital 'T' for tin in markets", *Canadian Mining Journal* (December 1985), p. 50.

[56] *Financial Times* (London), March 12, 1986, p. 16, and March 14, 1986, p. 1; interviews.

Canada supported the Tinco proposal and efforts within the ITA to find a solution. However, Canada is one of the smaller members of the ITA and the outcome of negotiations depends primarily on the positions taken by the European consuming countries and the Southeast Asian producers.

The tin crisis effectively killed the ITA. There is no prospect that it will be renewed with economic provisions in the forseeable future. In summer 1986, the developing producing countries asked the UNCTAD Secretariat to convene a meeting of producing and consuming countries interested in the creation of a tin study group to continue the statistical and consultative functions of the ITA without any provisions for market intervention. A low-key meeting was held in fall 1986 at which consuming and producing countries expressed interest in the idea, but no decision was taken because of the continuing legal battles surrounding the ITA. Canadian officials think that the creation of a tin study group is a good idea, as long as it has no legal link to the ITA (to avoid legal problems) and as long as its activities are restricted to improving market transparency and facilitating consultations among market participants. Such an institution would be particularly useful to Canada if the East Kemptville tin mine manages to remain in production and Canada becomes a net tin exporter. However, nothing concrete is likely to happen until the problems surrounding the collapse of the ITA have been resolved.[57]

Tin producers, led by Malaysia, recently agreed to attempt to raise prices by means of joint export cutbacks. The ATPC members (Malaysia, Indonesia, Thailand, Bolivia, Australia, Nigeria, and Zaire) agreed to limit exports for a year from March 1987 to 96,000 metric tons, down from a projected total of 105,000 tons, and persuaded non-ATPC producers Brazil and China to limit their exports. Tin consumers doubt that the agreement will stick, but if it does it will reduce the huge stockpile overhanging the market.[58]

The collapse of the tin agreement has affected the climate for negotiations regarding other minerals. It has made developed countries more reluctant to become involved in commodity agreements that contain provisions for market intervention, and has made some unwilling to become involved even in study groups that specifically reject market intervention. Some countries have used the tin crisis as a reason for their decisions not to participate in study groups for other minerals being promoted by Canada. On the other hand, Canadian officials hope that in the longer run the experience with the tin crisis will lead more countries to prefer study groups over formal commodity agreements.[59]

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[57] Interviews.

[58] *Globe and Mail*, February 3, 1987, p. B26.

The tin crisis also had an impact on debates about commodity agreements in Ottawa. At first it tended to dampen enthusiasm about all commodity agreements, including those for agricultural commodities exported by developing countries. However, over time a more nuanced view emerged that focused more on the specific problems that caused the collapse of the tin agreement - the inadequately specified powers of the buffer stock manager, the ill-defined liabilities of member governments, and the distorting impact of export controls designed to support continually rising prices - and attention has turned to ensuring that other ICAs are not subject to these flaws. There was some discussion within the bureaucracy of launching another review of Canadian commodity policy, but it was concluded that existing policy was adequate and simply needed to be implemented more carefully. This meant that greater attention would be paid to the economic and technical viability of agreements that Canada was considering joining. Cabinet Ministers expressed interest in the crisis, largely because of its broader implications for governmental liability for the actions of intergovernmental organizations. Not having the time or desire to delve into the minutiae of international commodity agreements, some Ministers were predisposed to question Canadian participation in all ICAs. Officials sought to persuade these ministers that other agreements are not subject to the same flaws.[60] It remains to be seen how Cabinet will respond when faced with a decision on membership in a new or renewed ICA.[61]

Conclusions

Canada's participation in the ITAs was motivated primarily by diplomatic considerations. Canadian support for efforts to stabilize and support tin prices was seen as a way to demonstrate Canada's sympathy for the objectives of Third World commodity exporters and to demonstrate its commitment to assisting particular countries with which Canada wished to promote close diplomatic and economic relations. The Canadian government was willing to have Canadian importers pay somewhat higher tin prices in order to achieve these objectives, although the cost to the latter should not be overstated. Tin constitutes a minor portion of Canadian steel producers' input costs, and (according to Canadian officials) the steel producers did not oppose Canadian membership in a agreement that was widely recognized to have raised prices. Canada also sought to minimize the cost of its membership in the agreement by resisting producer demands for dramatic increases in the ITA price range and by joining with other consumers in criticism of producer government policies that restricted production, investment, and exports.

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[59] Interviews.

[60] At the time of writing, it was unclear what impact the suit launched by Noranda and Rudolf Wolff against the Government of Canada would have on policy towards other commodity agreements.

[61] Interviews.

Canada's policy toward the ITA paralleled its policy toward ICAs for agricultural commodities that Canada imports from developing countries.[62] Canada joined ICAs for cocoa (before 1980), coffee, natural rubber, and sugar. Canada even joined two agreements (sugar in 1968 and cocoa in 1972) that were rejected by the United States and some of the large west European countries that import these commodities. Canada's willingness to join ICAs for agricultural commodities exported by developing countries reflects Canadian political leaders' commitment to assisting Third World development and Canada's diplomatic interest in maintaining good relations with developing countries. In all of these cases, Canadian leaders agreed with the developing exporting countries that international markets were excessively unstable and that international cooperation was needed to ensure stable, and remunerative prices. Canada's willingness to join these ICAs has also reflected the perception in Ottawa that the agreements would not impose substantial costs on Canadian consumers.[63]

Canada's willingness to join ICAs for agricultural commodities exported by developing countries has been accompanied by a relatively conservative negotiating stance to ensure that the agreements do not prove too costly to Canada. Canada has frequently been one of the strongest opponents of developing countries' demands for higher price ranges and other economic provisions that would enable ICAs to support prices at above-market levels. An interesting example of Canada's hard line in ICA negotiations was its insistence upon the inclusion of a supply commitment clause in the 1968 International Sugar Agreement negotiations. Producing countries agreed to supply sugar at below-market prices to traditional consumers when market prices exceeded the ceiling level specified in the Agreement. Even though this resulted in a transfer of resources from developing to developed countries (the opposite of the intention of LDC proponents of commodity market regulation), Canadian negotiators believed that the provision was necessary to provide a balance of rights and obligations between exporting and importing members of the Agreement. Japan was the only other importing country to insist upon the inclusion of a supply commitment clause.[64] As in the case of tin, Canada has sought to resolve the potential conflict between its political commitment to assisting Third World development and its narrow economic interest in low prices for the agricultural commodities it imports from developing countries by joining ICAs yet working hard to minimize any potential adverse impact.

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[62] See Finlayson and Zacher, *Managing International Markets: Developing Countries and the Commodity Trade Regime*, chapters 3 and 4, for details of these agreements. Additional information on Canadian policy was gained from interviews with Canadian officials.

[63] Interviews. The only exceptions to the last generalization are recent coffee agreements; see below.

There are two exceptions to these generalizations which help to illustrate how diplomatic and economic considerations have interacted in Canadian policy-making in this area. One is the 1980 cocoa agreement, the only such ICA that Canada decided not to join.[65] Canadian confectionary firms were concerned that if Canada joined an agreement that did not include the United States (the United States did not join the 1980 cocoa agreement), they would face higher input costs than their American competitors because of the one cent per pound levy imposed on cocoa trade among member countries that was used to finance the agreement's buffer stock.[66] The Canadian confectionary industry had expressed opposition to Canadian membership in the 1972 and 1975 cocoa agreements for the same reason, but Canada had joined those agreements because the diplomatic advantages of membership were judged to outweigh the slight disadvantage to Canadian consuming firms. In 1980, industry opposition carried greater weight because it paralleled growing doubts in Ottawa about the efficacy of the agreement and about the diplomatic advantages of membership. A close examination of the provisions of the agreement suggested that it would distort rather than stabilize the market. In the context of declining Third World interest in the Integrated Programme for Commodities proposals, Canadian diplomats concluded that the few developing countries which participated in the cocoa agreement would not be deeply offended if Canada decided not to participate.[67]

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[64] Interviews; Ian Smith, "Structure and Policy Changes in World Sugar", *Journal of World Trade Law* 15 (May-June 1977), p. 244.

[65] Canada has not yet decided whether to join the 1986 cocoa agreement. Ottawa's indecision reflects many of its doubts about the 1980 agreement, detailed below: interviews.

[66] Interviews; the levy was increased from one cent per pound to two cents per pound after the 1980 agreement was reached and after Canada had decided not to join.

The second exception is the coffee agreement. In recent years Canadian consumers have had to pay substantially higher coffee prices because of Canada's membership in the International Coffee Agreement. A two-price system has developed in the international coffee market. Importing countries that are members of the coffee agreement pay substantially more (anywhere from 20 percent to 100 percent more, according to various estimates) for coffee from member exporting countries than non-member importing countries pay on the open market. This is because the coffee agreement operates as a kind of consumer-sanctioned producer cartel; the major producers are permitted by consumers to decide upon market shares and to control both the entry of new producers and the expansion plans of existing producers. The largest consuming countries have gone along with this because of their political-strategic interest in supporting coffee producing countries in Latin America and Africa.[68]

The coffee roasting and processing industry has not spoken out in opposition to Canadian membership in the coffee agreement despite the agreement's impact on their input costs. Most of the Canadian industry is owned by American coffee firms, which have been persuaded by the American government to accept the agreement because higher coffee prices serve the American strategic interest in supporting friendly governments in Latin America. The Canadian subsidiaries of these firms have therefore not opposed Canadian membership in the ICFA, even though Canada has much less of a strategic interest in Latin America. Consumer groups in Canada have not taken a stand on the issue, and Ottawa has felt able to join a somewhat costly agreement for diplomatic reasons.[69]

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[67] Interviews.

[68] Finlayson and Zacher, *Managing International Markets: Developing Countries and the Commodity Trade Regime*, chapter four.

[69] Interviews.

6. OUTLINE AND SOURCES OF CANADIAN POLICY

Canadian policy towards international efforts to stabilize primary commodity markets has typically been made on a case-by-case basis to reflect commodity-specific and time-specific Canadian interests. Nevertheless, a number of clear patterns can be identified regarding the types of arrangements that have and have not been found acceptable.

First, Canada has generally preferred unregulated to regulated international mineral markets. Canadian leaders believe that, as an efficient, competitive producer of minerals, Canada is best served by open, non-discriminatory international markets. Canada has therefore opposed most proposals for formal intergovernmental regulation of the markets for minerals that Canada exports. The Canadian government has not supported the establishment of producer-consumer ICAs with economic provisions for any Canadian export mineral. It has participated in only one short-lived mineral cartel (that for uranium in the early 1970s), although it also acquiesced in the Saskatchewan government's potash prorationing scheme. Canada has been especially opposed to Third World-initiated efforts to form cartels or ICAs for minerals which Canada exports.

Second, and in contrast, the Canadian government has consistently supported developing countries' efforts to regulate international markets for commodities which Canada imports from the Third World. Canada was a member of the International Tin Agreement, and has participated in all post-World War II ICAs for agricultural products exported by developing countries with the exception of the 1980 cocoa agreement. Its attitude toward ICAs for tropical agricultural products has often been more favourable than those of the United States and the major European countries.

Third, the Canadian government has strongly supported the establishment of study groups to promote information sharing and informal consultations with respect to minerals that Canada exports. When Ottawa has perceived the need for an international strategy to assist a Canadian mineral industry buffeted by international market fluctuations, its typical response has been to initiate informal consultations with other major producing and consuming countries (usually western industrialized countries). In the cases of lead and zinc, nickel, copper, tungsten, and iron ore, Canada has supported efforts to move from informal consultations to the establishment of institutionalized study groups.

Fourth, Canada has accepted tacit oligopolistic market management, and, in particular, producer price systems characterized by price leadership, as features of oligopolistic industries that help to stabilize international markets and to ensure prices that are remunerative to producers. Canada's acceptance of these mechanisms is conditional on producers not using their market power to engage in price gouging of consumers (an unlikely scenario, since tacit cooperation does not enable producers to ignore market forces). Many officials favour industry attempts to operate producer price systems based on price leadership and to practice self-discipline in marketing. These practices would help to stabilize markets without introducing rigidities and other serious distortions. Ottawa has promoted study groups in part as a means to strengthen (or re-establish, as the case may be) the conditions that permit tacit oligopolistic market management to exist.[1] Ottawa has been interested in intergovernmental cooperation or regulation only when tacit oligopolistic market management breaks down or in cases in which it never became established. Examples are lead and zinc in the late 1950s (intergovernmental cooperation in the ILZSG has subsequently helped to strengthen tacit oligopolistic market management), uranium in the early 1970s (a case in which tacit oligopolistic market management never existed), nickel in the late 1970s, and copper in the 1980s.[2] Thus, it can be seen that tacit oligopolistic market management, study groups, and formal regulatory schemes are alternative mechanisms for bringing stability to international mineral markets. They are alternatives both in theory and in Canadian policy practice, despite important differences among these mechanisms on other dimensions.

The primary determinants of Canadian foreign policy towards international commodity market instability are conditions in the individual sectors themselves and the expected impact of proposed measures on the Canadian industry. Ottawa's assessments of the needs of individual industries and of the impact of proposed measures are dominated (although not completely determined) by the views of the private Canadian firms that produce and consume the commodities in question. Canada's policies towards international strategies to stabilize commodity markets must also be consistent with broader Canadian foreign policy concerns. Consequently, Canadian policies in specific sectors sometimes diverge from what would be expected, based on narrow sectoral interests, to reflect Canada's desire to maintain good relations with the Third World and with its major trading partners, the western industrialized countries. Finally, the nature of the policy-making process influences Canadian policy toward mineral market instability. The bulk of this chapter is devoted to explaining how each of these factors helps to determine Canadian policy towards international efforts to stabilize primary commodity markets. Most of the discussion concerns policy toward export minerals, but brief mention will also be made of policy towards tin and agricultural commodities imported from developing countries. Many of the same factors are at work in the import and export cases, but have resulted in substantially different policy outcomes.

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[1] It is not an explicit goal of Canadian policy to create study groups in order to promote tacit oligopolistic market management, but (as noted in chapter one) study groups can help to promote the recognition of mutual interdependence among producers and market transparency that are prerequisites for tacit oligopolistic market management.

[2] The problem in the case of iron ore was long seen as tacit *oligopsonistic* market management, and sentiment in Ottawa in favour of APEF and an iron ore study group was motivated in part by a desire to counter that dynamic.

Market Conditions and Market Structures

Conditions in the Canadian industry initially determine the level of official Canadian interest in cooperative intergovernmental action. Ottawa has been interested in exploring the possibilities for intergovernmental cooperation only in cases of unusually severe market problems that strain the industry's ability to adjust without imposing unacceptable costs on dependent communities and regions. In normal times, the federal government has preferred to let the private industry manage (tacitly) international markets and respond to cyclical market instability in its own way, intervening only to provide a safety net of social services to help individuals and communities to weather the temporary downturns.

Canadian producers have occasionally been faced with dramatic structural changes in international markets or with actions by foreign governments which threaten the viability of the industry and/or impose a heavy burden of adjustment on dependent communities. Typically, depressed conditions in international markets trigger protectionism in countries which both produce and import minerals, thereby hitting Canadian exporters with a double blow of low prices and reduced market access. Throughout the period under study, the United States has periodically resorted to tariffs and non-tariff barriers to protect high-cost domestic producers from low world market prices and low-cost foreign competition. In cases of weak international markets and foreign protectionism, the federal government has been willing to intervene to seek some form of intergovernmental cooperation to ameliorate the plight of the Canadian industry. The decision to take action has occasionally been made by the government independent of any request for assistance from the industry, although such a decision has never been made in the face of opposition from industry.

The frequency of market problems triggering government action has varied over the period covered by this study, as has the nature of Ottawa's response. From the 1950s to the early 1970s, most international mineral markets of greatest interest to Canadian producers were relatively stable. Demand was strong and most industries had oligopolistic structures which facilitated tacit oligopolistic market management, typically by means of producer price systems characterized by price leadership. Under these conditions, there was little interest in Ottawa in intergovernmental strategies to stabilize export mineral markets. On the other hand, when a need for greater market stability was perceived, Ottawa was willing to support internationally-coordinated intervention. The Canadian government took the lead in creating a cartel for uranium, acquiesced in the Saskatchewan government's potash prorationing scheme (which in effect established a Saskatchewan-New Mexico cartel), and joined in informal efforts in the ILZSG to coordinate production decisions. Ottawa even initiated discussions with Australia regarding coordination of international nickel marketing when conditions in that industry weakened in the early 1970s, and unilaterally imposed export controls to insulate domestic consumers from high international copper prices in the 1960s. To the extent that diverse Canadian policies towards international efforts to stabilize different export mineral markets from the 1950s to the early 1970s reveal a pattern, it is one of a pragmatic willingness to intervene on a case-by-case basis when required, combined with an assessment that intervention was rarely required.

International markets for Canadian export minerals were extremely unstable after the early 1970s, as periods of weak demand and low prices followed the resource boom of 1972-74. However, in most cases this instability was thought to be cyclical and therefore did not give rise to any Canadian interest in international stabilization measures. It was expected that market conditions would soon improve as they always had after downturns in the 1950s and 1960s,[3] and in the meantime federal and provincial social services would protect workers and communities from the full impact of the instability. Only the troubles of the nickel industry in 1976-77 gave an indication of the structural problems that were to hit the Canadian mineral sector in the 1980s.

International markets for minerals were devastated by the recession of 1981-82, and have not fully recovered. In Canada and abroad, there has been a growing awareness that the problems facing mineral industries in this decade are structural rather than merely cyclical. On the demand side of mineral markets, declining intensity of mineral use in the industrialized economies and slow world economic growth have reduced rates of growth in mineral consumption. On the supply side, the dispersion of mineral production as new sources of supply have been developed, overcapacity resulting from excessively optimistic projections of demand growth made in the 1970s, and the shift to government ownership and control of mineral production in many countries have contributed to oversupply and to low price elasticities of supply. These trends in demand and supply have led to persistent weakness in international mineral markets and have forced profit-motivated private producers in Canada and the United States to absorb a disproportionate burden of production cuts needed to reduce oversupply and prevent a total collapse of prices.[4]

The mineral market problems of the 1980s have sparked interest in Ottawa in international measures to stabilize markets of interest to Canadian mineral exporters. However, growing disillusionment with formal government regulation of international markets has reduced the attractiveness of that option for dealing with market instability. Ottawa shares the growing western skepticism of government intervention as a solution to market problems. OPEC's difficulties and the ITA fiasco have been interpreted as evidence that formal market regulation does not work.[5] Canada has therefore not sought formal regulation to deal with the problems of export minerals in the 1980s. Instead, Ottawa has become more interested in international study groups as a means for improving market transparency and for persuading foreign governments to avoid policies that Canadians believe are disrupting markets. Canada is supporting the establishment of study groups for copper, iron ore, nickel, tin (of which Canada has become a producer and exporter), and tungsten. Study groups or other international consultative mechanisms already exist for lead and zinc and uranium.[6]

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[3] This was the perception both in Canada and abroad, and it contributed to the growth of overcapacity that has plagued many international mineral markets in the 1980s: Phillip Crowson, "Keynote Address: Structural Changes in the World Mineral Industry: Implications for Canada", in Wojciechowski, ed., *Structural Changes in the World Mineral Industry*, pp. 2, 9.

[4] See articles in Wojciechowski, ed., *Structural Changes in the World Mineral Industry*, especially Crowson, "Keynote Address: Structural Changes in the World Mineral Industry", and Margot Wojciechowski, "Digest of Discussions", pp. 163-171.

Some observers and politicians have suggested that Canada, as a country that depends upon primary commodity exports for a large share of domestic economic activity and export earnings, shares an interest with developing countries in international agreements to stabilize commodity markets.[7] However, Canada did not perceive a need for cooperative intergovernmental action as often as did many developing countries during the 1950s, 1960s, and 1970s in part because many export markets for Canadian minerals were characterized by tacit oligopolistic market management mechanisms which provided Canadian exporters with prices that were higher and more stable than prevailed in the export markets upon which developing mineral exporters depended. Producer pricing systems based on price leadership were in operation until the mid to late 1970s in North American markets for copper, lead, nickel, and zinc, and overseas markets for nickel and zinc. Canadian producers benefited from preferential access to the U.S. market because of lower transportation costs and Canada's reputation as a familiar and reliable supplier. In contrast, developing mineral exporters were typically more dependent upon overseas markets in which oligopoly was less well established and prices tended to be lower and less stable. To the extent that producer pricing systems based on price leadership and other forms of tacit oligopolistic market management shielded Canadian producers and mining communities from the full impact of unstable mineral markets, both industry and government in Canada often perceived less need for intergovernmental regulation of mineral markets than did the governments of producing countries which export to markets that lacked effective management by private producers.

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[5] However, in both cases, producers were able to hold prices above market levels (and, in OPEC's case, far above most members' costs of production) for many years. That both arrangements weakened (to the point of collapse in the case of the ITA) during the recession of the early 1980s should therefore not be interpreted as conclusive evidence that intergovernmental regulation of mineral markets never achieves its objectives.

[6] In uranium, discussions in the International Atomic Energy Agency are intended to promote better understanding of market trends and therefore fulfill the consultative function of a study group, just as IAEA publications fulfill the statistical function.

[7] See, for example, North-South Institute, *Commodity Trade.*

In fact, Ottawa has identified a need for international action to stabilize mineral markets only in cases in which Canadian firms produce for markets which are not subject to tacit oligopolistic management by private producers. Prior to the late 1970s, this was true only of uranium. Since the emergence of structural problems and the breakdown of oligopoly and producer pricing systems in the late 1970s, Ottawa has identified a need for intergovernmental consultations for many important Canadian export minerals. However, Ottawa has not shared developing producing countries' preferences for formal market regulation.

Conditions in international markets also have a critical impact on Canadian policy towards international efforts to stabilize markets for commodities that Canada imports from developing countries. Canada's willingness to participate in ICAs for tin, cocoa, coffee, natural rubber, and sugar reflected Ottawa's belief that international markets for these commodities were excessively unstable and that international cooperation could help to correct this problem.

Structure of the Canadian Economy

Canadian interest in formal intergovernmental action even in cases in which Canadian exporters face adverse international market trends is less than that of many developing countries because of differences between the structure of the Canadian economy and the structure of most Third World economies. The mineral sector makes an important contribution to the Canadian balance of payments, so naturally the government is very concerned to promote exports and to maximize returns from these exports. On the other hand, none of the individual minerals considered in this study accounts for more than a very minor proportion of total Canadian export earnings. This is in stark contrast to the situation in many developing countries, where more than 50 percent of total export earnings are accounted for by one mineral (e.g., copper in Zambia, Zaire, and Chile). Many developing countries also depend upon primary commodity exports for a large proportion of both government revenues and employment. International market fluctuations can therefore undermine political stability as well as economic prosperity in these countries. According to some political scientists, it is this internal political weakness (and not merely the desire for greater economic returns) that has driven Third World states to seek international regulation to reduce the severity of commodity market fluctuations.[8] The diversity of the Canadian economy dilutes the impact of variations in primary commodity export earnings on economic conditions, government revenues, and employment.[9] Consequently, the Canadian government rarely sees as urgent a need for intergovernmental action to moderate market fluctuations as do the governments of developing countries.

The Canadian government's ability to directly assist those hurt by market fluctuations also tends to diminish Canadian interest in intergovernmental measures to stabilize primary commodity markets. Ottawa's typical response to layoffs made by private producers in reaction to depressed markets is to accept those layoffs as inevitable and necessary, and to provide a safety net of unemployment insurance, welfare, and employment subsidies to help the individuals affected through the bad times.[10] Until recently, miners and mining communities had come to accept the cyclical nature of mining employment. Miners tended to look to the federal and provincial governments for support to help them weather what were perceived to be temporary downturns. Only in exceptional circumstances have mine workers and communities called for direct government intervention, most notably in the cases of uranium, when the entire industry was threatened, and nickel, when the mining communities first began to suffer from instability after many years of stability resulting from Inco's dominance of the international market. More recently, copper mining unions called for government support for stockpiling during the prolonged recession of the early 1980s.[11]

During the 1980s, when structural changes in the international minerals industry led to permanent cutbacks in production and employment in Canadian mineral industries. Ottawa and provincial governments stepped in to ameliorate the impact on mining communities by subsidizing new industrial developments and relocating government offices to the depressed areas. Sudbury (the centre of the Canadian nickel industry) and eastern Quebec (where iron ore mining and shipping played a large role in the economy) were notable beneficiaries of these programs. Most developing countries, almost by definition, lack the resources required to provide social services and government-funded jobs to insulate mine workers and communities from the full impact of market fluctuations. Developing countries therefore have a much greater need to look beyond their borders for solutions to the problems of their primary commodity producers.

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[8] Stephen D. Krasner, *Structural Conflict: The Third World Against Global Liberalism* (Berkeley: University of California Press, 1985).

[9] There can be severe regional impacts, but with the notable exception of uranium these have triggered the use of safety net policies (see below) rather than intergovernmental regulation.

[10] Judy Erola, Minister of State (Mines), "Notes for an Address to the Annual Meeting of the Mining Association of Canada", Canadian Mineral Outlook Conference, May 17-18, 1983, Ottawa, mimeograph, p. 6; interviews.

[11] Interviews.

Economic Implications of Regulatory Proposals

Canada's opposition to formal intergovernmental regulation and its support for less formal study group-type arrangements are also shaped by perceptions of the workability and the balance of costs and benefits for Canada of the different types of arrangements.[12] The Canadian government is open to the idea that formal intergovernmental regulation may be appropriate to deal with certain types of problems in certain commodity markets. This view was more widespread in the 1950s, 1960s, and the 1970s than it is in the 1980s; disillusionment with government intervention has risen in the public as well as the private sector. Nevertheless, the consensus among officials has always been that formal regulation by means of ICAs is not appropriate for most of the minerals exported by Canada. Canadian mineral exporters are highly competitive in international markets. Canada is wary of any measures that could interfere with the efforts of efficient, competitive Canadian producers to maximize market shares and revenues.

Canada has been especially opposed to proposals for market regulation coming from the Third World. These proposals have usually been seen in Canada as attempts by inefficient Third World producers to maintain economic viability by forcing efficient producers like Canada to share the burden of international price support measures needed to raise prices to cover their high costs.[13] Officials have been deeply concerned that if Canada participated in Third World-initiated regulatory schemes, it would be subject to diplomatic pressure to accept a disproportionate share of the burdens of market regulation in ICAs or cartels for minerals also exported by developing countries. In the context of the Integrated Programme for Commodities proposals of the mid-1970s, officials feared that if agreements were negotiated for copper and iron ore, Canada would face a "loss of production and a reduced rate of expansion of the domestic industry because of preferential treatment granted to developing countries in the context of production and export restrictions".[14]

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[12] These perceptions have undoubtedly been shaped by ongoing contacts between Canadian officials and the mining industry. The following paragraphs on the topic are based on interviews with a large number of Canadian officials working in this policy area.

Many officials therefore find it difficult to conceive of an intergovernmental regulatory instrument that developing producing countries would support and that would be beneficial for Canada. ICAs are expected to introduce distortions into markets, impede market flexibility, and hurt producers in the long run. Officials argue, citing OPEC and the ITA, that attempts to support prices at artificial levels merely encourage consumers to switch to substitutes and stimulate the development of competing sources of supply. In addition, studies done during the 1970s indicated that Canadian producers might actually suffer net revenue losses if markets were stabilized by means of a buffer stock.

The Canadian government therefore believes that, while international competitive pressures may occasionally necessitate difficult adjustments in the Canadian mineral sector, Canada's long-term interests will continue to be best accommodated within the framework of competitive and non-discriminatory international markets. This belief remains strong in the 1980s, even though Canadian mineral industries have suffered badly from international competition in depressed markets. Ottawa expects that Canadian producers will continue to obtain a satisfactory market share on the basis of their advanced technology and Canada's resource endowment. If regulation is necessary to deal with extreme instability, it should aim only to even out the peaks and troughs while allowing maximum room for the operation of market forces. Intergovernmental collaborative measures should always be designed to make markets work better, not to replace markets with intergovernmental regulation.

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[13] Interviews with government officials and industry spokesmen.

[14] Cajka, EMR, "Proposal for a Common Fund", p. 18. As noted earlier, this study was not an official policy statement, but it is indicative of official views.

Strong Canadian opposition to Third World proposals that would affect Canadian export minerals is somewhat paradoxical. Canada has often been thought to be more sympathetic to Third World proposals for commodity market regulation because it shares with developing countries a dependence on raw material exports.[15] Similarly, the opposition of wealthy industrialized countries to Third World proposals for commodity market regulation is frequently explained by their interest as importers in unregulated markets in which prices will presumably be lower. However, it is in those sectors in which Canada and developing countries are both exporters (e.g., copper and iron ore) that Canada has actually been most resistant to Third World initiatives. Canada has been much more supportive of international market regulation for commodities which Canada imports from developing countries.

Study groups have been the preferred international strategy of the Canadian government in the 1980s because they promise to help make markets work better. By improving market transparency and providing a forum for consultations among producers and consumers, study groups can encourage more appropriate responses to changing market conditions. In particular, consultations within study groups are viewed in Ottawa (and in the Canadian industry) as an opportunity to persuade foreign governments to refrain from policies of protection and production subsidies which tend to distort markets to Canada's disadvantage. Informal consultations and information exchanges therefore hold the promise of improving market stability without resort to price fixing, market sharing, and other economic provisions of ICAs that tend to introduce distortions into markets.

Canadian officials feel that the informality and confidentiality of study group meetings is more conducive to frank discussion and intergovernmental cooperation than are formal meetings set in the highly politicized United Nations context. An important reason for Canada's support for study groups is the opportunity these meetings provide for informal discussions among industry leaders from many countries. Study groups that involve consumers as well as producers are acceptable under American and European anti-trust laws, and therefore provide a safe forum for discussions among private producing firms and producing and consuming governments. Discussions of market trends and production plans enable producers to make independent decisions on the basis of much better information on their counterparts' plans and likely reactions.[16]

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[15] See, for example: Robert L. Rothstein, *Global Bargaining: UNCTAD and the Quest for a New International Economic Order* (Princeton: Princeton University Press, 1979), p. 23; Jeffrey A. Hart, *The New International Economic Order: Conflict and Cooperation in North-South Economic Relations, 1974-77* (New York: St. Martin's Press, 1983), chapter five.

Study group meetings involving producers could help to establish the trust, mutual understanding, and recognition of inter-producer interdependence that are essential if tacit oligopolistic market management (typically in the form of producer price systems based on price leadership) is to be workable and effective. There is no formal link between the ILZSG and the producer price systems that have existed for lead and zinc. Instead, the argument here is that study group meetings can help to create the conditions necessary for the operation of producer price systems based on price leadership.[17] The expansion of government control of mineral production contributed substantially to the breakdown of oligopolistic market management in the 1970s. The profit-maximizing goals of private producers are fundamentally different from the revenue- and employment-maximizing goals of government-controlled producers, and this has made it very difficult to recognize the interdependence of the fortunes of the two types of producers. Canada's support for study groups has been motivated in part by the desire to persuade government-controlled producers that their fortunes are interdependent with those of their foreign competitors, and that all would be better off if greater self-discipline in production and marketing was exercised. Ironically, many of the government-controlled producers that Canada hopes to persuade to limit production are developing countries. Just as developing countries' proposals for ICAs for copper, iron ore, and other minerals were seen as a means to limit production from Canada and other developed countries in the 1970s, Canada's support for study groups can be seen as a means to limit production (albeit informally) from developing countries in the 1980s.[18]

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[16] If discussions among producers in study groups ever seemed to be leading to informal cartel-like arrangements (as some consuming governments appear to fear), Canada and other producing and consuming governments would undoubtedly intervene.

[17] See chapter one.

[18] Indeed, Chile's perception that this is the purpose of the copper study group proposed by the United States (and strongly supported by Canada) has made it wary of participating in such an organization: interviews.

Canada's policies towards ICAs for commodities that Canada imports from developing countries are also influenced by the economic implications of proposed arrangements. Canada's willingness to join ICAs for tin, cocoa (before 1980), natural rubber, and sugar has been influenced by the fact that none of these agreements has imposed substantial costs on Canadian consumers. The provisions of these agreements are constrained by what the largest importing countries are willing to accept. At different times the United States, West Germany, the United Kingdom, and Japan have all blocked the adoption of provisions on price ranges, export and production controls, and buffer stocks that would have raised prices or restricted consumers' access to supplies. While Canada has rarely had a decisive impact on the outcome of negotiations regarding these ICAs, Canadian negotiators have consistently taken a relatively hard line on price ranges and other provisions of these agreements to ensure that they served more to stabilize prices around market trends than to transfer resources to developing countries via higher prices.

Attitudes of Private Canadian Industries

The Canadian government is very responsive to the attitudes of the private industries that produce and consume primary commodities that are the subjects of international stabilization efforts. Ottawa has never pursued cooperative intergovernmental measures for international mineral markets that conflicted with the wishes of the relevant industry. The mining industry has good access to policy makers, who are usually sympathetic to industry views and often share a similar perception of the needs of Canadian resource industries. Many officials involved in Canadian policy-making in this area, particularly those in EMR and in certain branches of the old (pre-1982) Department of Industry, Trade, and Commerce, perceive their function largely in terms of serving the mining industry and representing its views within government. Ongoing contacts between industry and officials and the interchange of personnel between the two sectors also help to sensitize government officials to the attitudes of industry.

The mineral industry in Canada is by nature "vociferously opposed to government regulation or interference"[19] and is especially opposed to government intervention in mineral marketing. Canadian mining firms have traditionally liked to portray themselves as independent free-enterprisers operating successfully in competitive international markets without the need for government support, and have been philosophically opposed to direct government involvement in the industry.[20] Attempts by governments to intervene in mineral markets in the past are perceived by mining executives to have done much more harm than good. Oft-cited examples are the ITA, OPEC, and the copper export controls that the Canadian government imposed in the 1960s.[21] In the case of proposals arising in UNCTAD in the 1970s, mining executives feared that incompetent, anti-capitalist UNCTAD bureaucrats and their Third World supporters would attempt to drive prices up to artificial and unsustainable levels. UNCTAD would do this, it was feared, by forcing efficient producers in Canada and other developed countries to cut back production to make room for inefficient Third World producers. The new UNCTAD leadership of the 1980s is perceived to have lost interest in direct market regulation, this has lead the Canadian industry to reverse its position and support discussions concerning study groups under UNCTAD auspices.[22]

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[19] G.J.S. Govett and M.H. Govett, "A Canadian Perspective on Commodities", in *The Canadian Perspective on Commodities*, p. 11.

Industry opposition to intergovernmental market regulation was also due (until recently) to the strong competitive position of Canadian producers in international markets and the existence of tacit oligopolistic management of important export markets by means of producer price systems based on price leadership. Both of these factors made intergovernmental market regulation unnecessary, and gave rise to fears that regulation could interfere with the exploitation of competitive advantages and with existing tacit arrangements for oligopolistic market management. Since Canada's competitive position in international mineral markets and oligopolistic producer price systems began to erode in the late 1970s, most of the industry has given strong support to the creation of study groups. The industry hopes that consultations in study groups would serve to persuade foreign governments to reduce subsidized surplus production and to persuade all producers to exercise greater self-discipline in mineral marketing. Self-discipline is frequently identified as a source of the stability of mineral markets before government ownership and control became prevalent in the 1970s.[23]

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[20] Stevenson, "The Process of Making Mineral Policy in Canada", p. 189; interviews with industry executives. Indirect government support such a government-financed infrastructure developments, tax incentives, and direct subsidies have of course not been opposed or refused.

[21] These export controls do not fall into any of the categories of market stabilization measures discussed in the introduction, and were imposed unilaterally, but the difficulties they created for Canadian producers are seen by the latter as an example of how governmental efforts to intervene in mineral markets are doomed to cause more problems than they solve.

[22] Interviews with industry executives.

With the exceptions of uranium and potash, private producers of all of the minerals considered in this study have been opposed to formal government intervention in mineral markets. This has contributed to Ottawa's reluctance to get involved in intergovernmental market regulation. In a number of cases, officials interviewed noted industry opposition as the most important reason for Canada's rejection of intergovernmental regulatory schemes. In the case of copper, industry opposition helped to overcome sentiment in favour of an ICA in Cabinet, while in the case of iron ore it helped to overcome support in the bureaucracy for membership in APEF. Similarly, Ottawa's strong support for study groups reflects widespread support for such bodies within the Canadian industry.

The attitudes of private Canadian industries have also influenced Canadian policies towards ICAs for commodities that Canada imports from developing countries. The importing firms that would potentially be affected by such agreements have generally been indifferent to Canadian membership. The only case in which the importing Canadian industry has opposed Canadian participation, rather than merely expressing indifference, was the cocoa agreement. Canadian participation in the 1972, 1975, and 1980 cocoa agreements was opposed by the confectionary industry. In 1980, this opposition contributed to Canada's decision not to participate in the agreement. In other cases, the indifference of consuming industries to Canadian participation in ICAs has reflected the industries' expectations that the agreements would not have much impact on price levels. Even if an agreement did have the effect intended by producing countries, higher prices could usually be passed on to final consumers, with little adverse impact on the importing firms. For example, the tin agreement was widely thought to have raised prices above market levels. However, tin accounts for such a tiny proportion of the input costs of Canadian steelmakers that they were indifferent about Canadian membership in the ITA as long as it did not restrict their access to supplies.

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[23] Interviews with industry executives and government officials.

Diplomatic Implications of Regulatory Schemes

While the interests of Canadian commodity producing and consuming industries tend to dominate Canadian policy towards international market stabilization measures, Canadian policies also reflect broader foreign policy concerns. Three such concerns have influenced foreign policy in this sector; Canada's desire to promote good relations with developing countries, Canada's traditional support for multilateral economic cooperation, and Canada's interest in maintaining good relations with its OECD trading partners and NATO allies.

Since the late 1940s, Canadian leaders have believed that Canada should play a leading role in cooperative international efforts to promote economic development in the Third World. Prime Ministers Pearson and Trudeau, a small but influential number of Cabinet Ministers and Members of Parliament (MPs), and many officials in the Department of External Affairs, have therefore been predisposed to accept Canadian membership in international agreements to stabilize primary commodity markets of interest to Third World countries. The political commitment to Third World development has caused Canada to join a number of ICAs which do not provide any economic benefits for Canada, some of which may involve considerable costs. On the other hand, it is worth emphasizing that Canada has never joined a commodity agreement that threatened to impose a significant cost on a domestic producing or consuming industry,[24] and that Canada has done everything it could to defuse pressure for particularly threatening agreements (e.g., copper) at the risk of alienating important Third World countries. The priority in Canadian policy towards international stabilization of primary commodity markets has clearly been to protect the interests of Canadian industries. North-South diplomatic concerns modify Canadian policy in very low-cost directions.

Within this general framework, Canadian policy towards ICAs for primary commodities exported by developing countries has varied across time in response to the changing international diplomatic environment. Canada joined all of the ICAs negotiated between the late 1940s and the early 1970s for primary commodities exported by Third World countries - cocoa, coffee, sugar, and tin. On the other hand, Canada initially demonstrated little sympathy for the broader commodity market reforms being proposed by the Group of 77 developing countries. Canada joined with the United States in opposing the commodity trade resolution passed at UNCTAD I in 1964 (a resolution that was approved by certain other western industrialized countries), and was viewed by one observer as more intransigent than most western countries at the Conference.[25] During the 1950s, 1960s, and early 1970s Canada also rejected proposals from developing countries for international regulation of markets for minerals exported by Canada (copper, iron ore, lead and zinc, and tungsten) and for synthetic and natural rubber. The Third World as a group was unable to make commodity market regulation a big enough political issue to force Canada (or other developed countries) to adopt policies favouring market regulation across the board.

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[24] The coffee agreement may be an exception, but the costs are borne mainly by coffee consumers and the industry itself does not oppose Canadian membership for special reasons; see chapter five.

Canadian foreign policy towards international commodity market instability was dominated during the 1970s by the concerted Third World effort to restructure international markets for a wide variety of primary commodities. The creation of the Integrated Programme for Commodities (IPC) and pressure from developing countries to create new ICAs to transfer resources from North to South triggered an internal review of Canadian policy towards instability in international markets for primary commodities. The policy review came out of a debate between Prime Minister Trudeau and certain Cabinet Ministers, on one side, and the vast majority of the officials who work in this area, on the other. Trudeau and a small group of Cabinet Ministers and MPs were highly sympathetic to the problems faced by developing countries and were deeply committed to assisting cooperative international efforts to promote economic development in the Third World. This sympathy and commitment were shared by many officials in the Department of External Affairs. Politicians holding these views were inclined to favour a positive Canadian response to Third World demands for international economic reform. The inclination was particularly strong with respect to the IPC because it appeared that Canada, as a major commodity producer and exporter, shared common interests with developing countries in commodity trade regulation. The perception of common interests suggested that commodity trade might be an area in which Canada could take the initiative in North-South relations.

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[25] J.C. Mills, "Canada at UNCTAD", *International Journal* 20(2) (Spring 1965), pp. 214-218.

These attitudes and perceptions resulted in a seemingly positive initial top-level Canadian response to the New International Economic Order and IPC demands of the Group of 77.[26] Speeches by Prime Minister Trudeau and Secretary of State for External Affairs Allan MacEachen in 1975 and 1976 expressed a willingness to consider seriously and sympathetically the demands of the developing countries.[27] These general policy statements led some observers to conclude that Canada was one of the more sympathetic Northern countries, not as supportive of Third World demands as the Scandinavian countries and France, but more supportive than most of the larger countries (the United States, Britain, West Germany, and Japan). Canada's relatively sympathetic attitude was usually attributed to its dependence upon raw material exports, which was presumed to make it more supportive of international commodity market stabilization.[28]

Most of the Canadian officials involved in commodity-specific negotiations took quite a different view. They were inclined to reject the IPC proposals, and were under considerable pressure from Cabinet to adopt a more forthcoming stance, particularly in the copper negotiations. However, officials strongly believed that Canada's dependence on commodity exports and highly competitive position in many mineral export markets meant that the country's interests lay in open, non-discriminatory markets. The IPC threatened to introduce discriminatory treatment of developed exporting countries like Canada, forcing them to cut production to make room for less competitive Third World producers. For this and other reasons (see above), officials believed that the Group of 77's proposed commodity trade reforms were inimical to important Canadian interests. As one senior official expressed the prevailing view in the bureaucracy, "we just have too much at stake in this area" to use it as the basis for a North-South diplomatic initiative.[29] The result of the conflict between Canada's diplomatic interest in responding favourably to Third World demands and its narrow economic interests in specific proposals for market regulation was ambiguity in Canadian policy. Top-level policy pronouncements suggested that Canada would support elements of the IPC, while the position adopted by Canadian representatives in actual IPC negotiations was much less forthcoming.

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[26] Bernard Wood, "Canada and Third World Development: Testing Mutual Interests", in Robert Cassen, Richard Jolly, John Sewell, and Robert Wood, eds., *Rich Country Interests and Third World Development* (New York: St. Martin's Press for the Institute of Development Studies at Sussex, 1982), pp. 100, 118.

[27] See especially Trudeau's Mansion House speech in 1975 and MacEachen's speeches to the Seventh Special Session of the United Nations General Assembly in 1975 and to UNCTAD IV in 1976.

[28] See sources cited in footnote 15.

Cabinet's dissatisfaction with the advice of the bureaucracy and the latter's resistance to directions from Ministers moved Cabinet to order an interdepartmental review of Canadian policy towards commodity trade regulation in the fall of 1978.[30] The review was presented to the Cabinet of Prime Minister Joe Clark in 1979, by which time much of the Third World had lost interest in the IPC proposals. The review largely reaffirmed traditional Canadian policy. The document reiterated the need for a case-by-case approach to Canadian policy, emphasized the need to weigh the economic costs and benefits to Canada of all proposed agreements, stressed that Canadian interests were likely to be best served by unregulated and competitive international markets, and was generally more skeptical of the value of intergovernmental regulation than Canadian policy had been in the past. It provided no support for a more forthcoming Canadian policy towards Third World proposals for commodity market regulation. In the end, officials were able to persuade both the Clark and the Trudeau Cabinets that Canada's interests lay in open rather than regulated commodity markets, and that Canada had too much at stake in commodity trade to use intergovernmental regulation as an instrument of North-South diplomacy.[31]

Strong Third World pressure for commodity market regulation in the mid-1970s was a major influence on Canadian foreign policy regarding instability in international markets for all types of primary commodities. Canada joined renewed cocoa, coffee, sugar, and tin agreements, supported the creation of an ICA for natural rubber, and expressed a willingness to join ICAs for other Third World exports.[32] Canada was also one of the first developed countries to support the principle of joint consumer-producer financing of ICA buffer stocks, as manifested in its support for mandatory joint producer-consumer financing of the ITA buffer stock in the 1975 negotiations. All of these policies reflected the desire to respond positively to concerted Third World pressure for international commodity trade reform. In export mineral sectors, the basic Canadian approach was one of damage limitation. Canadian officials were determined to prevent the establishment of ICAs for copper, iron ore, lead and zinc, and tungsten as demanded by some developing countries. Canadian negotiators moderated their rhetoric and advanced compromise proposals in order to maintain Canada's reputation as a sympathetic Northern country, but did not make any concrete concessions to the developing exporting countries' central demands.

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[29] Interview.

[30] The origin of the Cabinet-level review in Cabinet dissatisfaction with official advice is noted in: North-South Institute, *In the Canadian Interest? Third World Development in the 1980s* (Ottawa: North-South Institute, 1980), p. 65; additional information gained from interviews.

[31] Interviews.

Third World pressure to implement the IPC had largely dissipated by the late 1970s (see chapter one). This contributed to a tendency in Canada to weigh the costs and benefits of Canadian membership in individual ICAs more carefully. The shift in policy was most apparent in the case of the 1980 cocoa agreement, the first ICA created in response to Third World demands that Canada did not join. The more rigorous economic criteria incorporated in the 1979 policy review highlighted the economic flaws of the agreement, while a revised assessment of the diplomatic implications of membership suggested that Canada's relations with developing countries would not suffer if it did not join the cocoa agreement. While it is too early to be certain, there are indications that the Conservative government of Brian Mulroney is less deeply committed to assisting Third World development than were the previous Liberal governments of Pierre Trudeau, and this could lead to a further decline in Canadian support for Third World ICAs.[33]

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[32] One senior official indicated in an interview that Canada was willing to join an ICA for tea had the tea producers been able to reach agreement among themselves on the provisions of an agreement.

[33] Several Canadian officials identified this tendency in interviews, pointing to less Ministerial interest in Third World issues under the new government. However, since the Conservative Cabinet had not yet made a decision on Canadian membership in an ICA at the time these interviews were conducted (February and November 1987), its ultimate policy is still unknown. Cabinet had discussed membership in the 1986 cocoa agreement, but had decided to defer making a decision.

The removal of commodity trade regulation from the top of the North-South agenda by the early 1980s also made Canada more willing to support international discussions convened for the purpose of considering study groups. This was because the fear that any international discussions regarding such minerals as copper and iron ore would be dominated by Third World demands for formal market regulation had receded. Recent experience in tungsten indicates that this pressure, while diminished, has not altogether disappeared.

Canada's decisions to join ICAs for primary commodities exported by developing countries are also consistent with its traditional foreign policy of support for cooperative multilateral efforts to solve international problems. Early in the post-World War Two period, Canadian foreign policy makers adopted this strategy as a way to maximize Canada's influence in international affairs. Multilateral fora would provide greater opportunities for middle powers (as Canada was then considered) to shape foreign policy outcomes than would traditional bilateral negotiations which the most powerful countries could be expected to dominate. Canadian diplomats also promoted a functional approach to international negotiations, in which those countries with the greatest expertise and/or the most at stake would have leading roles, rather than letting all issues be dominated by the so-called great powers. This approach too was designed to maximize Canada's influence in areas of greatest concern to it.

Support for ICAs fit in with the strategy of promoting multilateral, functionally-oriented cooperation adopted by Canadian diplomatic leaders. Canada could expect to have a voice in multilateral ICA negotiations on issues that concerned it even though Canada was a relatively minor player in the global economy and a minor importer of most primary commodities exported by developing countries. Support for multilateral, functionally-oriented cooperation regarding commodities imported by Canada was also intended to support Canada's efforts to generate international support for measures to stabilize the international market for wheat. Canada took the lead in efforts to create an effective International Wheat Agreement (IWA) from the 1930s through the 1970s, and viewed an agreement as a critical support for an industry whose importance to Canada far outweighed that of any individual mineral. During the 1950s and 1960s, Canadian diplomats hoped that a favourable Canadian attitude towards ICAs of interest to other countries, combined with support for the principle of international market stabilization for agricultural commodities, would encourage more countries to join the IWA and to support provisions that would make it effective.[34]

These broader considerations have had less influence on Canadian foreign policy in recent years. The principle of multilateral cooperation has had a less prominent place in Canadian foreign policy ever since the Trudeau foreign policy review of 1970, which emphasized national self-interest rather than international cooperation. The two are not incompatible, but the change in emphasis in policy statements has been accompanied by a reduced commitment to multilateral institutions. In the 1980s, Canadian foreign policy has been characterized by a new emphasis on bilateral relations.[35] This is manifested most clearly in the priority the Trudeau and Mulroney governments have attached to the negotiation of a bilateral Canada-United States trade agreement.

The shift away from principled support for multilateral cooperation has reduced Canada's broader foreign policy interest in ICAs. Similarly, little attention has been paid to the revival of the IWA since the last major set of negotiations failed in 1979. Canada and other wheat exporters do not believe that an IWA is an appropriate response to the problems of subsidies and protectionism that currently plague the industry.[36]

Canada's interest in maintaining good relations with its OECD partners is another key foreign policy consideration helping to shape Canadian policy towards international stabilization of primary commodity markets. The hostile reaction in the United States to Canada's participation in the uranium cartel and to the potash prorationing scheme brought home to Canada the diplomatic problems that can arise when Canada participates in action to drive up the prices of minerals imported by other western industrialized countries. The scope for retaliation by consuming countries against Canadian policies perceived to hurt their interests is very large. Canada depends on access to OECD markets for the bulk of its mineral production and for most of its exports in other categories. From a narrower, sectoral perspective, many officials believe that Canada's reputation as a secure, reliable supplier is an important asset for Canadian mineral exporters. This perception has encouraged a very cautious approach to cartel-like action which could damage Canada's reputation.

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[34] Interviews with current and former Canadian officials.

[35] This is a central theme of David B. Dewitt and John J. Kirton, *Canada as a Principal Power: A Study in Foreign Policy and International Relations* (Toronto: John Wiley and Sons, 1983).

[36] Interviews.

Aside from the dangers of retaliation and loss of reputation, officials usually consider the attitude of other western industrialized countries to be critical to the success of international efforts to stabilize markets. They believe that intergovernmental collaborative action, be it a study group or an ICA, will not work in the face of opposition from major producing or consuming countries. Since the largest consumers of virtually all minerals and the largest producers of certain minerals are western developed countries, Canadian officials want to involve them in any intergovernmental action. As a corollary, the belief that the major players must be involved also helps to explain why Canada prefers arrangements which involve producers and consumers over producer-only arrangements.

Canada has felt itself in danger of becoming isolated in North-South commodity trade negotiations, particularly during the 1970s, because as a northern commodity exporter it did not fit comfortably into either of the main protagonist groupings, i.e., the northern importing countries or the southern exporting countries. Canadian diplomats have sought to ensure that Canada is taken seriously in the northern group so that it does not become impotent in commodity negotiations. Consequently, Canadian negotiators try to avoid going out on a limb during negotiations and usually base their proposals on modifications of the positions of the larger northern countries.

All of these considerations have contributed to Canada's reluctance to become involved in formal market regulation of minerals that it exports, particularly along the lines of most proposals from developing countries. Conversely, the only arrangements that Canada has been a part of are those that have had the support of the major western producing and consuming countries (the ILZSG, the potash prorationing scheme,[37] and discussions for study groups for copper, nickel, and tungsten) or at least their tacit acceptance (in the case of the uranium cartel).

The concerns of the United States, Canada's most important trading partner, have sometimes been represented in the Canadian policy-making process through the conduit of American-owned producing firms in Canada. This factor was particularly important in the case of iron ore, as most Canadian production was controlled by American steel companies which were vociferously opposed to any form of intergovernmental cooperation. Since the Canadian government is neither willing nor able to act in the face of industry opposition, this ownership structure effectively prevented Ottawa from joining in intergovernmental action to counter the monopsony power of the steel companies. On the other hand, the same international ties that constrained Canadian policymakers also helped to shelter Canadian iron ore producers from the full impact of international market weakness in the early 1980s.

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[37] The Canadian government was not formally a party to the scheme, but it would probably not have acquiesced in the Saskatchewan initiative if it had threatened to generate U.S. retaliation.

International ownership ties have been significant in other cases. Gulf's fear of prosecution under American anti-trust laws constituted an obstacle to Canadian participation in the uranium cartel, although this was eventually overcome. Fear of U.S. anti-trust prosecution was also significant in the reluctance of the Canadian nickel industry (which is about 50 percent U.S.-owned) to lend its support to Ottawa's INSG initiatives. Finally, American ownership of the Canadian coffee processing industry has helped to prevent domestic opposition to higher coffee prices resulting from Canada's membership in the International Coffee Agreement.

Canada has been much more willing to get involved in intergovernmental cooperation regarding export minerals in cases in which production is concentrated in a small number of western developed countries than in those in which production is widely dispersed among a large number of countries with diverse political and economic characteristics. The contrast here is between Canadian support for intergovernmental arrangements for lead and zinc, uranium, and nickel (and Ottawa's acquiescence in the potash prorationing scheme), and Canadian opposition to ICAs and producer associations for copper and iron ore. This bias is due in part to the fact that coordination is simply easier to achieve among a small number of like-minded producers than it is among a large number of producers with diverse perceptions and needs. It is also due to the concern that Canada would likely be subject to diplomatic pressure to accept a disproportionate share of the burdens of market regulation in ICAs or cartels for minerals also exported by developing countries (see above). Canadian officials interviewed doubted that Canada would ever join an agreement that discriminated against Canadian producers, but the diplomatic cost (in terms of Canada's reputation in the Third World) of a Canadian refusal to join an ICA supported by developed importing countries could have been quite high. This was a real concern during the UNCTAD copper negotiations. Canadian officials are also reluctant to discuss market problems and possible international cooperation with developing countries before consulting with other developed countries (as was evident in the origins of the INSG discusssions) because of the likelihood that developing countries will demand formal market regulation. If Canada's initiative became associated with Third World-type proposals for market regulation, it could jeopardize Canada's chance of being taken seriously in subsequent approaches to the industrialized countries.

Implications of the Policy-Making Process

Canadian positions towards intergovernmental collaborative efforts are usually determined by government officials in close consultation with the specific producing or consuming industry. Elected politicians are significantly involved only at the level of encouraging officials to do something to help communities affected by international market fluctuations (this was clearest in the case of nickel). Cabinet is rarely involved in the substance of policy, since Ministers are usually too busy with other issues of greater political impact. When Cabinet does take an interest, advice from officials tends to dominate decision-making because of the complex technical nature of the issues and because Cabinet Ministers lack the time and the inclination to delve deeply into commodity trade issues. Advice from officials dominated decision-making even in the case of copper, when Ministers did have independent opinions that conflicted with those of their officials. In the case of nickel, Cabinet became interested because of the political importance of the mining regions, but the decision to pursue a study group was based largely on input from officials, and once the decision was made there was minimal follow-up interest from Cabinet.

The lack of direct Cabinet involvement does not mean that elected politicians are irrelevant. Officials are highly sensitive to the concerns of their political superiors, and make sure that their recommendations fall well within the bounds of the acceptable in terms of both foreign and domestic economic policy. They consult extensively with private industry and are careful to incorporate its concerns, in part to ensure that their positions do not violate the interests of groups that have political influence with elected leaders.[38]

Nevertheless, the lack of input from Cabinet means that there is no in-depth supervision of Canadian foreign policy towards commodity market instability by politicians responsible to the Canadian public. Cabinet Ministers rely almost exclusively on advice from officials to assess the policies recommended by those same officials. This is not a problem if the policies recommended by the bureaucracy (in close consultation with the private industry) are always congruent with those of Canada as a whole, but an argument can be made that this is not always the case. The public costs of providing a safety net of social services, and the private costs to labour and to mining communities of adjusting to cyclically unstable mineral markets, may outweigh the benefits of adjusting production levels closely to the level of market demand. However, since the officials responsible for Canadian foreign policy towards mineral market regulation do not consult with those responsible for providing social services and for helping individuals and communities dependent on mining to adjust, this macro-economic cost-benefit analysis is not made in the bureaucracy. Because Cabinet is not deeply involved in policy towards instability in international mineral markets, this analysis is also not made at the political level.

It is also notable that officials consult only with the private firms that produce or consume the commodities under question. Other groups such as labour unions, community leaders, consumer groups, and groups that support Canadian assistance for Third World development are generally not included in the policy-making process. The responses of these groups (especially local communities in the case of export minerals) are undoubtedly taken into consideration by officials and Cabinet Ministers, but they have no opportunity to directly influence the positions adopted by Canada. Most of these groups have not sought to influence Canadian foreign policy in this area, perhaps because they do not realize how these policies affect their interests. Officials have made no effort to solicit their input. The only non-industry groups that have consistently attempted to influence policy are certain organizations that support assistance for

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[38] Some officials interviewed suggested that they had been especially careful to ensure that issues did not need to rise to the Cabinet level during the IPC debates of the mid-1970s because they were concerned that politicians subject to pressure from constituents in mining communities and sympathetic to Third World demands for market regulation might favour positions that the officials believed would be detrimental to Canada.

Third World development, but their support for ICAs for products exported by developing countries (including copper and iron ore) has been at a very general level and their input has not dealt with crucial economic and technical issues.

Again, the lack of input from domestic groups other than commodity producing and consuming industries does not matter if the interests of private industries are congruent with the interests of these other groups, but it is conceivable that this is not always the case. Labour unions and mining community leaders may be more interested in market stability than are private mining firms, since under certain conditions the pursuit of stability conflicts with the pursuit of profit maximization. Rather than trying to reconcile divergent interests, however, the policy-making process in the area of Canadian foreign policy towards instability in international commodity markets simply neglects certain interests.

In the case of export minerals, the process of making foreign policy towards international market instability involves two levels of government, and this has constrained the options available to Ottawa. Responsibility for mineral policy in Canada is divided between the federal and provincial governments. Conflicts between the two levels of government were intense during the 1970s, when provincial governments were becoming more interested in using mineral resources as the basis for provincial economic development programs and when rising resource prices (in the first half of the decade) increased the implications for government revenues of resource industries. In the area of international marketing, the provincial claim for a share of jurisdiction originally arose out of the British North America Act's provisions regarding provincial ownership of mineral resources.[39] The Saskatchewan government used these provisions to justify its potash prorationing scheme, and while the federal government disagreed on the jurisdictional issue, it felt politically unable to intervene to block the scheme. The Constitutional Accord of 1982 strengthened the provinces' right to control the use of mineral resources, thereby increasing the problem facing Ottawa. The difficulty of coordinating federal and provincial positions would constitute a formidable obstacle to Canadian participation in any formal intergovernmental arrangement,[40] particularly if the arrangement required restrictions on production or exports to be distributed among a number of provinces. Conversely, exclusive federal jurisdiction over uranium production and trade and support from the government of Ontario (the main producing province at the time of the creation of the cartel) facilitated Canadian participation in the uranium cartel.[41]

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[39] Marsha A. Chandler and William M. Chandler, *Public Policy and Provincial Politics* (Toronto: McGraw-Hill Ryerson Limited, 1979), pp. 253-63; Stevenson, pp. 167-72.

[40] Stevenson, "The Process of making Mineral Resource Policy in Canada", pp. 172-73.

Conclusions

Much of the Canadian mineral industry has been experiencing hard times since the mid-1970s. Structural problems of slow demand growth and surplus production have combined with extreme cyclical fluctuations to impose severe burdens of adjustment on those Canadians dependent upon the mining industry. Ottawa's main foreign policy strategy for dealing with instability in international mineral markets since the mid-1970s has been to promote the creation of producer-consumer study groups.[42] Study groups would improve market transparency and facilitate informal consultations that, it is hoped, would lead to better independent decision-making by individual producers and consumers. The final question to consider in this conclusion is whether this Canadian strategy is appropriate in the current international political and economic environment.

It would be difficult to conclude that Ottawa could or should have done more to stabilize international mineral markets. Formal intergovernmental arrangements might have the potential to stabilize international markets by means of market sharing or buffer stocks to defend a chosen price range. Even aside from the very real technical obstacles to the creation of such agreements, the international political and economic obstacles to the creation of effective regulatory arrangements for Canadian export minerals are insurmountable. Regulatory measures are unlikely to succeed without the cooperation of the major trading countries, both producers and consumers. Cooperation from these countries is not likely to be forthcoming in the 1980s. Disillusionment with intergovernmental organizations in general, and with intergovernmental attempts to intervene in markets in particular, is high in certain key countries (especially the U.S. and Britain).

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[41] Participation in study groups is not subject to this problem (since there are no formal agreements to be implemented): interviews.

[42] Ottawa has also sought a bilateral trade access agreement with the United States in part to prevent Canadian resource industries from suffering from American protectionism when international markets are weak.

If it chose to do so, Canada might be able to generate international support for producer-only attempts to support and stabilize prices, since many Third World mineral producers have been calling for such action for decades. But the risks of this strategy would be enormous. Most important, Canada would run a serious risk of retaliation by mineral importing countries. In addition, the track record of producer agreements to limit exports and raise prices is extremely poor. Many developing producing countries lack the bureaucratic apparatus necessary to control production and exports and cannot afford to forego the earnings and employment provided by what private producers would consider excess output. These problems have contributed to the frequent inability of developing producing countries to agree among themselves on producer-only measures to support primary commodity prices. If it sought to create producer associations involving Third World countries, Canada would again be subject to diplomatic pressure to absorb a disproportionate share of the burden of market stabilization measures as a concession to developing countries. It is significant that the only producer-only actions considered in this paper that were successful in achieving their price objectives, the uranium cartel and the potash prorationing scheme, involved only developed producing countries.[43] This apparent prerequisite for success does not exist for any other Canadian export mineral, and has been eroded even in uranium and potash by the development of new sources of supply in developing countries. Thus, the potential benefits from Canadian participation in joint producer action to support and stabilize export mineral markets are minimal, especially when weighed against the threat of retaliation.

The issue of retaliation points to the critical constraint on Canada's foreign policy options imposed by its lack of international bargaining power. Canada is much more dependent upon access to the markets of its major trading partners for its exports of minerals and other goods than they are on access to Canadian sources of mineral supply. During the resource boom of the early 1970s, there was some hope in Ottawa that Canada could use its control over mineral resource supply to bargain for better export terms.[44] This hope underlay Canadian participation in the uranium cartel and the support in EMR for Canadian participation in APEF. But the emergence of new producers and excess supply in most international mineral markets by the late 1970s undermined any leverage that Canada might once have had by virtue of its rich mineral resources. International markets for most minerals exported by Canada have been buyers' markets since the late 1970s. International bargaining leverage also arises out of control of access to a desirable domestic market,[45] but here too Canada is at a disadvantage because its relatively small domestic market is less attractive to its main trading partners than their large markets are to Canada.

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[43] The ITA also achieved its price objectives for the better part of three decades (before its collapse in 1985), but this result depended upon the cooperation of the developed importing countries. OPEC has had considerable success in raising the price of oil, but features unique to the political economy of the international oil industry explain its relative success. As developing countries found to their disappointment in the 1970s, OPEC's achievements cannot be replicated in any other industry.

Overall, Canada's freedom to pursue international strategies intended to stabilize and support markets for export minerals is severely constrained by its international economic weakness relative to the major western industrialized countries - the United States, Japan, West Germany, Britain, and France - whose cooperation or acquiescence is a prerequisite for successful international action. While this is clearest in the case of proposals for formal market intervention, it is also true in the case of study groups, Ottawa's preferred strategy. Canada must try to persuade other countries that its proposals are in their interests, rather than bargain using an implicit or explicit threat to withhold something valued by its trading partners if they do not cooperate. Persuasion has been difficult in recent years since most consuming countries see little need to participate in study groups when mineral supplies appear to be plentiful for the foreseeable future.

Canada's need to persuade in the absence of an ability to pressure has been revealed in the nickel study group negotiations. Canada has been promoting the establishment of an INSG in international meetings since 1978. As of November 1987, nine years later, Canada was still trying to persuade important producing and consuming countries to join this rather innocuous organization, and it was still uncertain whether it would ever come into operation. The United States and Britain, two of the largest importing countries and two of Canada's closest allies, have already decided not to join. The attitude of the United States is particularly revealing. In 1983, Canadian officials were hopeful that the United States would eventually agree to join a nickel study group; as one put it, Canada does not ask the United States for much, and so it should not refuse to make such a low-cost concession to Canada.[46] Nevertheless, the United States did refuse and Canadian diplomats have decided that it would be pointless to try to reverse that decision.

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[44] James Eayers, "Canada's emergence as a foremost power" *International Perspective* (May/June 1975), pp. 22-24.

[45] See Albert O. Hirschman, *National Power and the Structure of Foreign Trade* (Berkeley: University of California Press, 1980).

We conclude that Ottawa's promotion of producer-consumer study groups is the most appropriate international strategy for dealing with instability in international markets for Canadian export minerals. Strategies that would involve formal intergovernmental intervention in markets are simply not viable in the current international political and economic climate. Study groups hold the promise of bringing some stability to markets that have been extremely volatile over the past decade. Information sharing and informal consultations to promote recognition among all international producers of the interdependence of their fortunes could lead to greater restraint on the part of government-controlled producers and to better decision-making by producers and consumers alike.

The obstacles to the creation of study groups should not be minimized, however. On one side of the market, the western industrialized countries that import Canadian minerals see little need for international cooperation in an era of excess supplies and low prices, and some suspect that study groups could facilitate cartel-like activity. On the other side of the market, some developing countries continue to insist on formal ICAs and to be unwilling to accept anything less. Others (e.g., Chile) are justifiably suspicious that they would come under pressure to limit production and exports if they participated in study group consultations. There is little that Ottawa can do to pressure developed importing and developing exporting countries to adopt a more favourable attitude towards study groups. The prospects for intergovernmental cooperation to ameliorate the problems of Canadian export mineral industries are not good. The need for appropriate domestic policies, both to help the Canadian industry remain competitive and to ease the burden of adjustment on mining companies, workers, and communities suffering from international market instability, is therefore very great.

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[46] Interviews.

Glossary of Acronyms

AEC - Atomic Energy Commission
AECB - Atomic Energy Control Board
APEF - Association of Iron Ore Exporting Countries
ATPC - Association of Tin Producing Countries
CANDU - Canada's Heavy Water Nuclear Reactor
CCF - Cooperative Commonwealth Federation
CIPEC - Council of Copper Exporting Countries
EEC - European Economic Community
EMR - Energy, Mines and Resources
ICA - International Trade Organization
ICCICA - Interim Coordinating Committee for International Commodity Agreements
ICFA - International Coffee Agreement
ILZSG - International Lead and Zinc Study Group
IMC - Industrial Minerals Corporation
INSG - International Nickel Study Group
IPC - Integrated Programme for Commodities
ITA - International Tin Agreement
IWA - International Wheat Agreement
LDC - Less Developed Countries
LME - London Metal Exchange
MP - Member of Parliament
NATO - North Atlantic Treaty Organization
NDP - New Democratic Party
NIEO - New International Economic Order
OECD - Organization for Economic Cooperation and Development
OPEC - Organization of Petroleum Exporting Countries
PCS - Potash Corporation of Saskatchewan
SWG - Sessional Working Group
UNCTAD - United Nations Conference on Trade and Development

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